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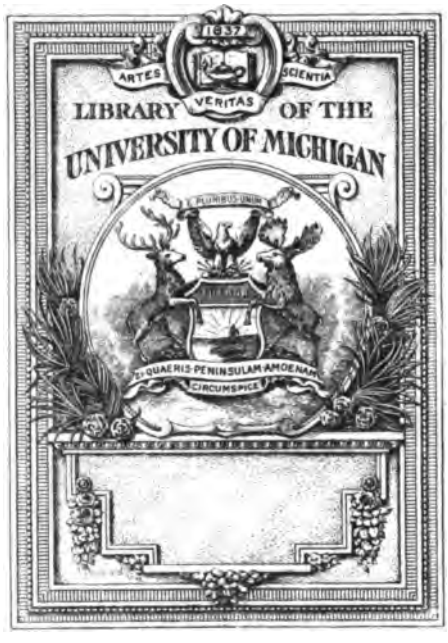
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AMERICAN

Amateur Photographer.

VOLUME I.

JULY TO JANUARY.

EDITED BY
W. H. BURBANK, F. C. BEACH AND W. G. CHASE.

BRUNSWICK, MAINE.
1889.
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A GENERAL VIEW
of the
NAVAL PARADE
APRIL 29th 1889.

A. SIMPSON, PHOTO.

PHOTO ENGRAVING CO N.Y.

THE AMERICAN AMATEUR PHOTOGRAPHER

A Monthly Review [illegible]

VOL. I BRUNSWICK [illegible]

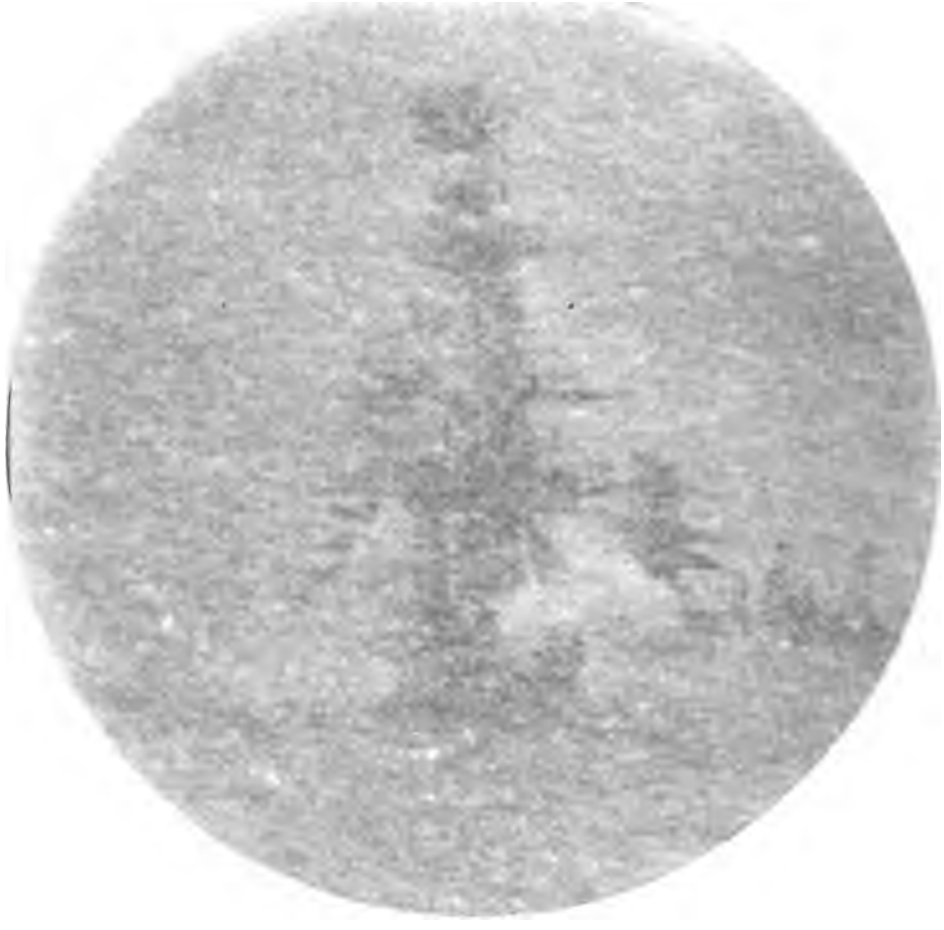
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* * *

EDITORIAL.

A FEW words in explanation of the [illegible] AMATEUR PHOTOGRAPHER may well [illegible] its [illegible] magazine has been started to the [illegible] somewhat [illegible] specific needs, because its [illegible] believed in the existence [illegible] of enthusiastic amateurs, who would welcome a journal [illegible] and their needs; because they believed that [illegible]



THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., JULY, 1889. No. 1.

Our Illustrations.

IT gives us pleasure to reproduce by the photogravure process for the first number of our magazine the work of two experienced amateur photographers, both members of the New York Society of Amateur Photographers. "The General View of the Naval Parade" was made from the hurricane deck of the centennial excursion steamer "Philadelphia," by Mr. Alfred L. Simpson of New York, on an 8 x 10 plate, with an Hermagis lens. It represents the various war vessels and revenue cutters saluting the Despatch, with President Harrison on board, as he passed along the line on his way to New York, on the day of the Centennial Naval Parade, April 29th. The view is a very picturesque one, and was caught at just the right moment.

"The President Leaving the Despatch" was also made from the upper deck of the "Philadelphia" by Mr. Richard H. Lawrence of New York, on a 4 x 5 plate, with a Beck lens. It shows the President being rowed ashore by the twelve sea-captains. The sailors manned the yards to salute the President as he left the Despatch. The picture was taken with the camera pointed against the light, yet it will be observed that it is remarkably sharp and distinct. Mr. Lawrence is to be congratulated on securing such a valuable photograph. These two instantaneous views convey a very good idea of life on the water that notable centennial day.

EDITORIAL.

A FEW words in explanation of the aims and purposes of the AMERICAN AMATEUR PHOTOGRAPHER may well find a place in its initial number. This magazine has been added to the already somewhat lengthy list of photographic journals, because its editors believed in the existence of a large and growing body of amateurs, who would welcome a journal devoted exclusively to them and their needs; because they believed that an attempt to help,

stimulate, and develop amateur photography would be appreciated and supported. Whether they are right or wrong, the sequel only will show. While the magazine is not published merely as a financial enterprise, it will not be long continued without prospect of ultimate success. Arrangements have been, or will soon be made for such permanent departments as Home and Foreign Correspondence, Doings of Amateurs, Experiences and Episodes, Society News and Notes, Queries and Answers, and others, which, in addition to the editorial and contributors' articles, will, we believe, make the AMERICAN AMATEUR PHOTOGRAPHER a welcome visitor. Its pages will be always open to practical articles on any topics of photographic interest. Its readers are invited to make the freest use of its Queries and Answers department, and to offer suggestions as to methods of improving the magazine.

The subscription price has been made as low as is consistent with sound business policy, low enough, it is hoped, that none need be without the help it will seek to give to all. Its illustrations alone will be worth the cost of a year's subscription, and its frequent illustrated descriptions of home-made appliances will save its readers many a dollar.

The question has been asked, "Why do you publish your paper in an obscure country town, and so deprive it of the prestige it would have if published in some great center, like New York or Philadelphia?" For the simple reason that the managing editor's home happens to be in that obscure country town, and that the cost of publication is much less than in New York or Philadelphia, which makes a small subscription rate possible. We feel convinced that the first number, both in make-up and matter, will compare favorably with any of its contemporaries published under seemingly more favorable conditions, and that, although published in a provincial town, there is little of a provincial air about it. We propose to win our prestige on our merits.

IN order to remove the objection raised against our obscure location, we have secured a New York office at Nos. 22 and 24 Burling Slip. Communications of all kinds, subscriptions, advertisements, and any matter intended for the magazine may be sent to either office, as may be most convenient. Specimen copies of the magazine will always be found at the New York office, which is established for the convenience of our friends.

AS a proof of the favor which the AMERICAN AMATEUR PHOTOGRAPHER has met with in advance of publication, we instance our advertising pages, in which will be found the business announcements of some of the largest and most reliable photographic dealers and manufacturers in the country, whose unexpectedly generous response to our invitation has done

much to make the publication of the magazine possible. Our readers will confer a favor upon us, and help the magazine by patronizing our advertisers.

IN the matter of illustrations we have secured unusual facilities. The Boston Photogravure Company will do the larger part of our work, and have kindly given us permission to draw freely on their large stock of cuts, and will help us in every way to make the AMERICAN AMATEUR PHOTOGRAPHER unequaled in the character and number of its illustrations. We shall give as large a number during the year as our subscription list will warrant, and we would ask our friends to work for us by obtaining subscriptions or sending us the names of those whom they think likely to become subscribers.

HAVING no connection with any stock house, and no goods of our own to advertise, we must rely largely on our friends to enable us to work up a subscription list large enough to enable us to furnish amateurs with a magazine which shall be a delight to the eye and a constant help to the experimenter and the practical worker.

Printing Methods.

HAPPY the amateur who lives in these salad days of photographic printing methods. From blue prints to aristotypes the list is a long one, and gives the skilled photographer well-nigh perfect mastery over his negatives. No longer, as of yore, is he compelled to make one process do for all classes of subjects, and negatives of every degree of density. By a judicious choice of methods he is enabled to produce effects formerly almost impossible of attainment on the time-honored albumen paper. While it is undoubtedly true that for general adaptability albumen paper has not yet been surpassed, there can be no doubt that for special purposes the newer processes are far superior.

Bromide paper is eminently adapted to produce the cool, gray tones which suit so well views taken under certain conditions of light, when nature seems clad in garments of homespun gray. For picturesque views and etching-like effects nothing can surpass prints made on plain paper. The platinum process seems best suited to general architectural work, both exterior and interior, although the recently introduced sepia paper gives tones in close harmony with the rich warmth of tone so common in nature. When it is a question of richness and delicacy of detail, the Aristotype and Obernetter's Chloride papers will satisfy the most exacting.

But all negatives are not equally well-suited to all these methods. Taking our own experience as a guide, we should say that the platinotype and the

plain paper processes were the most exacting in regard to the quality of negative necessary to produce the best results. In both these processes we have found that the best results were obtained from negatives of fair, but not excessive density, with a comparatively small proportion of heavy, unilluminated shadows, full of sparkle and brilliancy. From such negatives only, we believe, can the best results be obtained on platinum and plain papers; with neither of which can overmuch dodging be resorted to, to bolster up a badly bungled negative. For this reason we are of the opinion that one of the greatest helps to making really good negatives is to confine one's self to platinum or plain paper printing, until one has gained the ability to produce with certainty the class of negatives they require. The earnest effort to produce only the best will in time bring the ability to produce it.

When it comes to printing on albumen paper we find that almost any kind of a negative can be made to produce passable results. From dense to thin; from grave to gay; from yellow to gray; all are made to do duty for our old and trusty friend. It is fortunate that we have so complaisant a servant, since otherwise the average of our work would be sadly lowered. Even an indifferent print on albumen paper is capable of giving pleasure, while prints on any mat surface paper must be of superior quality in order to be pleasing. For these reasons we are constrained to recommend albumen paper for general work.

But while passable prints can be made, even from poor negatives, on albumen paper, the best results are obtained only from suitable negatives. The same class of negatives which will give good prints on platinum and plain paper will work well with albumen. They need not, however, be quite so intense. They should be well and harmoniously lighted, with no harsh contrasts, and possessed of an abundance of detail. The density in the lights should be such as to allow the shadows to be printed until they bronze, without showing any decided discoloration. Such negatives may be relied on to give the best results on albumen paper.

For Bromide, Chloride, and Aristo papers, the negatives should be made less intense. Indeed it is possible to produce good prints on these papers from negatives too thin to work to advantage on platinum, plain, or albumen papers. But the thinness must not be caused by overexposure to the extent of producing fog. Smoky negatives will not give satisfactory prints by any known process.

When it is desired to render the greatest possible amount of detail, as in photo-micographic work, nothing can excel the Aristo and Obernetter papers, the former possessing the decided advantage of not stretching.

From these remarks, the outcome of personal experience, it will be seen that the wise amateur is he who has mastered the working of the various methods and learned their capabilities and their limitations, and who keeps a stock of the different papers on hand, to suit his negatives and his needs.

The Present Aspect of Amateur Photography.

WE very much fear that in some respects photography is being belittled by its friends. Such has been the competition among manufacturers, that a fairly serviceable set of apparatus may now be purchased for a song. It has become a popular belief that all the difficulties have been removed, and that any one can take pictures. Photography has been degraded to the level of a mere sport, and many take it up, as they do lawn tennis, merely for an amusement, without a thought of the grand and elevating possibilities it opens up to them. The making of pictures is fast becoming merely an episode in a day's pleasure, not the earnest and untiring search for the beautiful. We submit that our art has a higher side than is apparent to him who uses only a detective or other small box, which, whatever their value, are far from representing all that is best and highest in photography. Indeed were this all, amateur photography would soon die of its own too-muchness.

It is not saying too much to affirm that there is a moral element in the practice of the art picturesque, which should be felt and followed by every worker with the camera: the morality which springs from the purpose, single and earnest, to interpret to unseeing eyes some portion, at least, of the charm and beauty with which God has filled this home of his making; from the effort, however feeble, to show to unthinking minds how the outgoings of the morning and the evening praise Him who is the Lord of the universe.

Such an earnest purpose as this lifts photography above the level of a mere pastime: it makes it an inspiration; an interpreter of the thoughts of God. He who has this purpose will not trouble himself overmuch about the vexed question, "Is photography art?" He will become a diligent and thoughtful seeker after the beautiful in nature, and, so far as lies in his power, an interpreter of it. He will learn to distinguish between grace and awkwardness; between the picturesque and the trivial; and this knowledge will give him a keener appreciation of nature's beauties and an added enjoyment in life. His highest aim will be to interpret aright the grace and charm of field and forest, lane and hedge-row, brook-side and sea-shore. Technical manipulation will be to him only a means to an end, and that end the interpretation of beauty.

To develop and foster this purpose by precept and example, to seek by all worthy means to dignify and elevate our art, will be the constant aim and effort of the AMERICAN AMATEUR PHOTOGRAPHER, which is founded on a sincere love for photography and a firm belief in its high mission.

Illuminating Negatives by Artificial Light.

IN enlarging or reducing from negatives by artificial light it is usually very difficult to illuminate them equally. The subjoined cut shows a method devised by Mr. James H. Stebbins, Jr., which was exhibited by him before the New York Society of Amateur Photographers in April, and was suggested by Mr. L. H. Laudy of the Columbia College School of Mines.



On the left is a lime light, run by the usual oxygen and hydrogen gases, enclosed in metal box like a magic lantern box. The condensers are reversed and placed with the convex face of one near to the plane face of the other. This position causes the light to emanate in nearly parallel rays upon the negative held in the frame in front of the camera seen on the right. Every portion of the negative is equally lighted. Mr. Stebbins tested its working by making a lantern slide before the audience, which proved to be very satisfactory.

Small Weights for the Photographer.

By W. E. Partridge.

THE smaller weights used in photographic weighing, even when made of aluminum, are inconveniently minute. They are not easily handled with the fingers and it is not always that the tweezers are at hand. In the ordinary sets of grain weights it is always possible by a little thought to get any desired number of grains, but when one is busy there is often a wish for a full set that would do away with the necessity of "making change."

Half an hour's work will give any one as complete a set of weights as may be desired and of a style much more easily managed than those made of metal. The *modus operandi* is to take a number of fine corks, slice them up into prisms about one-eighth or three-sixteenths of an inch square and half an inch long. Balance one of these against a grain weight, and pare it down with a sharp knife until it balances evenly. Mark it with ink and you have a bulky weight which is sufficiently accurate for all practical purposes. Repeat the operation, and if you have not a half-grain weight cut the weight in half. If the cork is pretty regular in texture, two one-half grain weights will be made very fairly accurate. If the scales are very good, greater accuracy can be obtained by making a rectangle of paper which will weigh just one grain. Then by carefully cutting it in halves, quarters, fifths, or

tenths, and balancing these, original weights can be made from which cork copies may be made as before. Fine wire is so very regular in size that fractional weights are easily obtained by dividing a given weight of it into the required number of parts by linear measure. The cork copies are then easily made. A set of these weights may comprise the following: Four quarter-grain weights, two half-grain, one-grain, two-grain, three-grain, four-grain, five-grain, six-grain, eight-grain, and ten-grain.

If the scales will weigh with sufficient accuracy to indicate the tenth of a grain, a set of metric weights can be made with a fair degree of accuracy. One and one-half grains will be fairly equal to a decigramme, and fifteen and one-half grains will equal the gramme. The first is a trifle short, the latter nearly one-tenth of a grain too large. If one has patience to divide the grain into thirds, quarters, and fifths, quite close approximate weights can be made. Even those we have mentioned are about as close as common cheap scales will weigh. For fifty and one hundred-grain weights whole T corks are needed, and they should have paraffine wax melted into them to increase their density a little and to render them impervious.

The convenience of a set of such weights, with the figures plainly marked upon all sides, is so great that they have only to be seen to be appreciated.

Her Anchor to Windward.

BY MISS ADELAIDE SKEEL.

"Scrap?"

"Yes, ma'am."

"Did you say Scrap?"

"Yes, ma'am."

"A foolish name—one could as well call a child Snap, and let him be a drop-shutter model!"

"Yes, ma'am."

"Could you coax him to pose a minute?"

"Yes, ma'am."

"Then do try, Mills, there's a good woman, and tell him he shall see Puggins dance, or I'll give him candy, or pennies, or blue prints—only hurry, hurry, he's losing his pretty attitude while you wait."

"Yes, ma'am," for the fifth time, and then without more delay the stout servant plodded her way clumsily through the heavy sand towards a small boy who stood, bareheaded and barefooted, gazing seaward.

It was no wonder the blonde lady wished to detect such an excellent fisher-lad study, for the child's whole figure expressed a sailor-longing. His outline was defined sharply against the blue sky, while the blue ocean rolling on the beach and tossing white capped on the horizon line, gave both

distance and foreground to this exceptionally happy marine view. To the left was a weather-beaten dory; on the right a bunch of tall sedge grass, as correctly placed for artistic effect as if put there by a scene painter. Mrs. Paradise studied him for a second on the dusty square inch ground glass of her camera, but before she could set the focus needle or adjust a stop the little fellow turned his freckled face to look at her. It is hard to be sure what he saw, but doubtless the impression her blonde beauty made on his brain was chiefly blackness and yellow hair. Islanders cannot as a rule correctly value English *crêpe* nor appreciate London smartness, and our little sailor was no exception. He was about to escape, when his attention was attracted by the less comely figure of Mills, who, approaching him at a waddling pace, now shouted in short staccato syllables:

"Stand still—don't move—I say—boy—stand still—don't move—a lady above is taking—you. She will pay you—stand still—"

So widespread is the beautiful art of photography that even on the Island detective cameras deceive no one, yet Scrap was surprised to see an amateur out of season. Here it was only May, and it was usually August before people began to dot the beach with white umbrellas, sketching stools, and tripods. They were one and all a promise-breaking lot, he thought, for never yet had he received a picture for his much posing. As he stood irresolute, twisting himself about on his slender ankles, first to see the lady on the cliff above, then the servant below, he heard the latter's clarion notes lifted above the pug dog's barking.

"Are you ready, ma'am? Boy, stand still—"

There was a pause, during which Puggins caused a diversion by nibbling the model's ankles, and then, instead of the usual "All done, thanks," from the photographer, came a despairing tearful cry.

"Oh, dear, Mills! I can't do it—don't ask me—it is too cruel—he is so like my sweet Lollo! Don't keep him—let him go! He has Lollo's eyes, and Lollo's mouth—the same roguish smile—the same chubby face and snub nose! Oh, Mills, come back quick—how could you leave me! Oh, dear! Oh, dear! Oh, dear! It is brutal to ask me to take him, when I cannot see him through my tears."

This sudden turn of affairs brought the faithful Mills back to her mistress' side, panting, but apologetic. "He do look like, ma'am, but I never remarked it before," while the released model fled away on the water's edge as lightly as a sandpiper.

The evening of the same day by the light of a smoky kerosene lamp, Mrs. Paradise wrote to her mother:

THE ISLAND, May 5, 188—

My Dear Mamma,—Thanks for all your kind letters, and for the messages of my many sympathizing friends. How glad I am to be far away from every one. I could not bear another Easter card or bunch of violets, but don't let them know. I like it here, for Mills has found me tolerable lodgings with the privilege of eating scrawn and pie next door, and as nobody has come down yet I have been able to rest a little. Every day I grow stronger,

so that I really walk a good deal. Of course I take pictures, and there is much to take in this picturesque old town where the houses have ship's figure heads in front, and the fences are made of drift-wood logs; but to-day, on the beach, I saw my little Lollo. Think of it, mamma! Mills asked him to pose for me, but I could not look at him twice. It seemed, indeed, as if God had opened the sky and sent him back to me. Oh, my dear little darling! If only Rob could come back, too! I was almost too weak to get home, but Mills helped me, and directly after she was sure I was able to be alone she went to the post-office and inquired about the boy who bears such a striking resemblance to my own. She says he is an orphan, adopted by an old maid who lives in a white house called "Old Hundred." She is not poor, so I cannot pay her money for her child, but she will be forever blessed by a grateful widow's thanks. I shall not try to drive a bargain; I shall simply tell her why I want him, and then, unless her heart is stone, she will gladly give him to me. He shall sleep in Lollo's crib and wear Lollo's clothes, play with Lollo's toys, and Lollo up in Heaven shall call him brother. Meanwhile I will be brave and take his picture for you, that you may know what a treasure I have found. My camera is, indeed, my chief happiness, and I thank you for urging me to bring it. I feared it would recall Rob too vividly, but already it has helped me find this twin Lollo. Did I say his name was Scrap? I laugh and cry when I think of him.

Good-bye, dearest mother; get the old nursery ready for us. I will surely send you some "blues" soon. Good-bye, good-bye. How true it is, God always gives us something back when he takes anything away.

Always your loving ANGEL.

It was not quite so clear to the mind of Miss Maria Coffin that something is always given back to one from whom anything has been taken away, when she heard indirectly from the gossiping neighbors that a rich widow from New York wished to adopt her Scrap. He was surely hers, although she herself had adopted him long ago in his baby days, at a time when she found herself suddenly alone in the island world. Her bereavements were not like Mrs. Paradise's; nevertheless, when one by one sisters and brothers married and left the homestead, life was too desolate to be passively borne. It was a brave step, because an unprecedented one in Coffin annals, nevertheless Miss Maria took it with unflinching courage, and once having taken it felt no inclination to relinquish her self-imposed duties.

"Old Hundred" was a rather grander house than its neighbors, yet at this crisis passers-by ventured oftener than usual to walk through the box-bordered garden on a chance of speaking to its proud mistress about the New York widow. It was town talk how she petted Scrap, how many pennies he spent on candy, how many "blues" he proudly showed the boys. Here he was, feigning sleep on the grass—rather forced, but pretty; here he was again, climbing a cherry tree—blurred, but full of action; here he was, sitting on a garden bench—out of focus, but well composed; here, running a race with Puggins—not as sharp as could be wished; here, reading a book upside down; here, whittling a stick; here, cupid-fashion, blindfolded; here, finally, only a six-year-old boy, Scrap himself and nobody else. Certainly Mrs. Paradise had stolen the shadow, and if report said true she meant to steal the substance before long.

Of course the little fellow had grown fond of her sweet ways and sweeter

candies, yet his was a loyal heart, and even when she plied him with questions about liking to be her boy, tempting him with promises of boats, bicycles, and—Kodaks, he always answered: "P'r'aps I'd visit you, but Miss Coffin is my real mamma."

It was a clear, sharp-cut May morning outside when Mrs. Paradise finally ventured to pull "Old Hundred's" door bell and make known her wishes to its mistress. She had postponed the evil hour day after day, amusing herself by photographing the house from a distance, but at last the deed must be done. She left Pug outside chained to a lace-flower arbor, while she went indoors to sit in a shadowy parlor, whose large spaces shamed the remembered littleness of her *bric-à-brac boudoir* at home. She was in some odd, material way unnerved by the solemn grandeur, as unexpected as it was unusual; the big Chinese jars, the glass loving-cup, the mahogany furniture, and dim family portraits, seeming one and all to be commenting unfavorably on her own *petite* prettiness. Presently there was a light step in the wide hall, and then in another minute Miss Maria Coffin, in all her erectness, appeared. She was thin and gray and worn, yet there was a fire in her deep-set black eyes which scorched.

"I have made friends with your little boy," faltered Mrs. Paradise, in her soft, wooing voice. "Children all love me; I don't know why. I have taken his picture a great many times, and—and—and because he looks like my own dear dead child—I—I—want him."

As Miss Coffin did not help the beggar in the least, after a sobbing pause the plea was continued:

"It is hard to tell one's story to a stranger, but to explain why I want Scrap I must say that I am childless and a widow. My husband died last winter, and two weeks after Lollo, too, was taken from me. I came down here to forget my sorrows and the first boy I saw was your boy—is he yours?"

"Yes, he is mine," was the cold, self-contained answer.

(To be continued.)

Notes on the Philadelphia Exhibition.

THE third annual joint exhibition of the Philadelphia, New York, and Boston societies, held for two weeks between April 8th and 20th in Philadelphia, at the Pennsylvania Academy of the Fine Arts, is conceded by those capable of judging to have been the best and largest of any yet held, and was especially rich and surprising in the beauty of the large display of foreign work. The comparison thus afforded of home and foreign amateur work is very instructive, and appears to show that our English friends are

rather more careful in their selection of subjects and in printing their pictures than the average American. It is certain from the many specimens of platinotypes sent over from the other side that it is a favorite method of printing there, not alone one would suppose from the agreeable tone obtainable, but probably also because of the permanence of the prints. There were a few specimens of the cold process platinotype and about five prints on the Pizzighelli printing out platinotype paper by Mr. Alfred Stieglitz of Berlin, Germany. It is probable in another year at the next exhibition this latter paper will appear more prominently, as improvements are likely to be made. The specimens were very creditable, though they lacked somewhat the charm of the sepia platinotype, and were mostly of portraits.

It was especially pleasing to the committee of arrangements to have so much time to hang the exhibits (two weeks), and also such a large area of wall space. As a result the photographs were hung in a belt around the walls of an average width of about four feet, with the center on a line with the eye. Every picture was thus very easily examined. As much as possible all of one exhibitor's work was hung together, which was also a very desirable improvement. To do this tastefully, as it always was done, required considerable care on the part of the committee, and they are to be congratulated on their success.

The publication of a catalogue of exhibits was first inaugurated at the New York exhibition in 1887, and was so successful that the custom has been kept up each year. Only those who are familiar with the work can comprehend its difficulties and delays. It must be acknowledged that the catalogue of the Philadelphia exhibition is superior to others previously issued, principally for the reason that in addition to the numbers of the frames, the walls are divided into groups which are numbered. Opposite the number of a group stands the numbers of exhibitors' frames with their names; so that in any part of the hall one only has to look up the group number to see whose exhibits are before him. Owing to the mixing up of numbers, which seems to have been necessary thus far, in arranging the pictures, considerable time is consumed by the visitor in finding the title in the catalogue. The suggestion is made, which perhaps it would be difficult to carry out in the limited time allowed, to have the names and titles of the pictures first set up, giving to each exhibitor a temporary number merely for the purpose of identification; then when the frames are hung, number them permanently in regular order, beginning at one side of a room, passing around to the other, and at the same time substitute in the catalogue the permanent numbers for the temporary ones, arranging the matter to correspond. Under proper systematization it is probable this could be effected very rapidly, and the result would be a much more conveniently arranged catalogue than any heretofore devised.

The exhibition filled two small square halls and one large main hall in the

Academy. In one of the smaller halls was arranged a square screen, having an overhanging hood on the outer side, for the purpose of preventing the light from the skylight above striking the eyes. On the wall of the screen were hung the transparencies of the exhibition. The arrangement answered its purpose admirably. A large temporary screen, on each side of which were hung some very fine platinotype pictures, was placed in the center of the large hall.

A noticeable feature in the exhibition was the small amount of professional work sent for competition and the great preponderance of that of the amateurs. The exhibits of professionals were limited mostly to portraits and process work.

In reviewing the exhibition as a whole it will be our aim to consider first some of the best work of exhibitors not members of any photographic association. Several interiors by I. R. Hooper of Boston were well rendered and excellently lighted. Anna H. Chace, Valley Falls, R. I., had some very artistic Florida views, and also sent some beautiful lantern slides, which, though not down in the catalogue, were exhibited on the last lantern night.

John H. Tarbell's (of New York) group studies were an improvement on those shown last year and exhibited good taste in pose and lighting. His "Two is Company" and "The Rehearsal," printed on plain paper, were especially striking. Elizabeth P. Martin of Philadelphia had three very fair Kodak views. Haywarde S. Cozzens of New York sent a frame of nine views illustrating some of the principal points of interest in the Franconia Mountains in New Hampshire. His work showed good average technical ability. Robert L. Bracklow of New York had a frame of seven views, mostly in the neighborhood of New Platz, New York, which were quite artistically done, but lacked a certain distinctness which photographers like to see. A single view by Mantle Fielding, Jr., of Philadelphia, representing the hall of a country-house near Philadelphia, was very good and an excellent platinum print.

The progress of photography in surveying and the formation of maps was very cleverly shown by two photographic maps sent by Lieut. Henry A. Reed, U. S. A., Fort Wadsworth, New York.

Charles P. Williams of Philadelphia had six views in two frames taken in Pennsylvania. One, a platinotype print, called "Don't keep me waiting when I'm so hungry," was especially good. Miss Elizabeth Y. Sharpless of Philadelphia sent one frame of seven portrait studies of fair quality. Miss Mary R. Ten Brook of the same city had a frame of seven small views, mostly on the coast of Maine near Kennebunkport, that displayed good technical ability. A series of flash-light studies in the nursery, by Miss Cornelia J. Needles of Philadelphia, illustrated how the advances in artificial lights enable all of the ordinary phases and eccentricities of infant

life to be photographed. There were ten 3¼ x 4¼ portraits and groups in one frame. One, entitled "Playing the Doctor," was very happily contrived and well lighted. Margaret L. Corlies of the same city sent three frames, in one of which were sixteen 3¼ x 4¼ portrait studies of good average merit. Mr. Edward Pennock, also of Philadelphia, exhibited seven views in as many frames, taken along picturesque Darby Creek and along Chester Creek. A few of the prints were on bromide paper. The work as a whole was of fair technical quality.

In a frame of nine views by Mr. V. E. Forbes of Rochester, N. Y., was a very picturesque road scene, called "Near the Genesee Falls." The road and trees were covered with snow. The detail in the snow, usually so difficult to obtain, was here brought out with a delicacy that was especially attractive. He also sent a set of six lantern slides, one of which (a portrait of a girl) was particularly pleasing.

Mrs. S. M. Cleveland of Philadelphia secured the diploma for the best general exhibit by ladies. She had eight groups and portraits in one frame. The 5 x 7 groups of "A Boy and a Cat" were particularly original, well lighted and arranged. The story was told in three pictures, called "A Jolly Story Interrupts Lunch," "More Story than Lunch," "Story and Lunch End in Sleep." We hope to reproduce these pictures for the benefit of our readers.

W. A. Stadelman, Bala, Penn., sent two frames of Kodak views of average merit. Three views in as many frames of noted points at Dingman's Ferry, by Philip F. Fulmer, Jr., of Philadelphia, exhibited excellent artistic and technical ability. S. Roggenburger of Philadelphia had seven frames of very fair flash-light portraits and groups. W. A. Greenwood of Philadelphia sent two frames of flash-light portraits, one being an enlargement from a cabinet negative on bromide paper. All were soft and fairly well done. Four frames by Hugh A. Smedberg of New York, included two portrait studies and two landscapes. His view of a Long Island homestead was particularly clear and sharp.

The large display of foreign work was especially fine. Commencing with Frank M. Sutcliffe, Whitby, England, who took a diploma for general excellence, we find many interesting photographs well worthy of study. Of his thirty-three 6½ x 8½ pictures, 467, called "Hurricane Corner," was admirable as a landscape, with striking cloud effects. Original and attractive groups were 480, "Excitement," representing some dozen boys leaning over the wall of a pier, looking down apparently on something going on below on the other side. Their backs were towards the camera, and their original and natural poses, some boys being barefooted, others with patched pants, and others too short trying to push themselves up, as boys do, to see what was going on, made a very novel and effective picture. This wall of a quay in Whitby harbor appears to be a favorite place for Mr. Sutcliffe to pose his

subjects. Another, entitled "Under the Capstand," a group of three girls sitting in front of a capstand, and busy knitting and conversing, with a man a short distance away leaning against the wall of the quay, looking off at the sea, was an extremely natural and attractive picture. "A Bonnie Fisher Lass" was specially good as a single portrait.

In addition to the artistic quality of all of Mr. Sutcliffe's work, there is a superior finish or warm, brown color to his silver prints which is especially desirable. It shows that he is a very careful worker. His pictures are excellent specimens for beginners and more experienced workers to study, since they are so thoroughly artistic and technically good.

Rev. F. C. Lambert of Cambridge, England, contributed several curious platinotype groups, which were remarkably well done. One portrait printed from an untouched negative of Prof. Caley, D. Sc. F. R. S. was very good indeed.

Undoubtedly the finest marine views of war vessels in motion were the eight 11 x 14 photographs of Japanese and Chillian steamers, exhibited by William Parry, South Shields, Scotland. They had splendid smoke effects; No. 519, called "The Japanese Cruiser, Tacachiho," was particularly fine as regards the smoke, wind, and dashing of the waves as the ship plowed through the water. Another, No. 515, "Roumanian Cruiser, Elizabetha, at Sea," was very clear and sharp. The views were fine models for artists fond of marine work to study. He received a diploma which was well deserved.

Two photographs, one a bromide and the other a silver print with a special tone, looking like a print simply dipped in hypo without previous toning, sent by H. H. Geddes & Son, Arbroath, Scotland, were very good specimens of combination printing. One picture, called "News from Abroad," was a combination print from four different negatives.

Five excellent portrait and animal studies by Mr. Charles E. Wyrall of Aldershot, England, printed mostly on platinotype paper, were particularly novel. One that was most striking (530), entitled "Convalescent," represented a large dog in a hammock. Mr. Wyrall supplemented the titles with verses of poetry, for the purpose of more fully explaining the object of the pictures.

Mr. Paul Lange's two large platinotype photographs, entitled "Hoar Frost on Trenton Farm," were most charming pictures, and were hung near Mr. Tolly's "On a Lonely Shore." The delicate tracery of the snow-covered branches of the trees, the bridge, the peculiar appearance of the snow in the road, and the happy location of the figures, all combine to make a picture that was most pleasant to see and worth studying. Mr. Lange, it should be added, is President of the Birkinhead Photographic Society, in Liverpool, England, and took a diploma.

Nearly forty fine platinotypes, about $6\frac{1}{2}$ x $8\frac{1}{2}$ in size, including many architectural subjects and beautiful landscapes, all the work of Mr. Richard

Keene, Vice-President of the Derby Photographic Society, of Derby, England, were placed together on one side of a large screen in the center of the main hall and were very much admired. He was awarded a diploma.

Mr. James Brown, Newcastle-on-Tyne, Scotland, sent five pretty road landscapes, printed on gelatine chloride paper.

Mr. and Mrs. W. J. Anckorn, Arbroath, Scotland, contributed five excellent figure studies. One, called "Auld Granny's Leather Pouch," was particularly meritorious and artistic.

Mr. Harry Symond's (of Portsmouth, England,) twelve yacht-racing scenes, taken from a sail-boat, were as usual up to his high standard of excellence, and attracted the attention of all interested in yachting.

Mr. Alfred Stieglitz of Berlin, Germany, showed quite an improvement over his former exhibits, in the twelve photographs he had sent. He was the only exhibitor that had positives printed on the new Pizzitype paper (the printing out platinotype paper), and they were very good. His other views noticeable for their artistic merit were "Approaching Storm, Lake Como," and "Grindelwald, Switzerland." In the former was displayed striking cloud effects, while the latter had a fine distance effect in combination with the interesting near-by mountain landscape.

Mr. W. C. Harvey of Gosport, England, contributed two photographs. One was quite original, and represented a boy and girl meeting in a village street, the boy, having kissed the girl, accidentally upset a milk-pail. They look at each other anxiously, and the question naturally arises how the matter shall be explained. It is suggested in the title, "What Shall I Tell Mother?" "Say You Slipped." Technically the picture was not of a high character, but the originality in it made it amusing.

Nothing can be added to the praise that was given by all to the splendid single portrait study, "My Mammy," sent by Mr. W. W. Winter of Derby, England. It was located in the center of the west wall of the main hall, and was universally admired, not only on account of its technical excellence, but also because of its high artistic merit. It certainly deserved the special diploma which was awarded.

From G. West & Son, South-Sea-Hants, England, were sent six yacht studies, fully equal to those shown in former exhibitions. They were mostly of racing yachts: the one that struck us as being the most artistic was a stern view of the yacht "Yarana."

As usual, Mr. J. Pattison Gibson of Hexam, England, sent some most charming landscape and water views (six in all). Two deserve special mention: one called "We Watch the Speckled Trout Glide By," was full of exquisite detail, had a beautiful distant effect, combined with fine treatment of the water in the foreground, and excellent arrangement of figures on the bank. The other, called "Landscape," was a platinotype print,

representing a winter scene. The rendering of the slushy snow in the roadway was particularly fine.

Ten photographs, mostly studies of a dog in various attitudes, printed on bromide paper, by Mr. Arthur R. Dresser of Bexbey Heath, Kent, England, were very well done. One, of a dog in the act of swimming after a stick, was especially effective. The tone of the prints was also pleasing, showing that it is going to be possible to utilize bromide paper for positive prints much more extensively than has been customary.

In Mr. M. Auty's seven 8 x 10 photographs we notice the same artistic quality and superior technical excellence that was so attractive in his pictures at the 1887 New York Exhibition. His "The Morning Mist" and "Durham Cathedral" deserve special mention. He resides at Tynemouth, Scotland.

Mr. P. H. Emerson of Chiswick, England, sent twenty portrait and landscape pictures of excellent merit. "The Stickleback Catcher" and "Faggot Cutters" were among the best.

Konst Krzyzanowski of Thurbow, Russia, had a few studies of Russian life and scenery, but they were not as perfectly finished as the English and American photographs.

It will be our purpose to review the work of the members of the Philadelphia Society in our next issue. We here give the report of the judges:

DIPLOMAS FOR SPECIAL EXCELLENCE.

1. For Landscape or Marine Views, Harry Tolley, Nottingham, England, No. 524, "On the Lonely Shore."
2. For Portraits, Frederick Gutekunst, Philadelphia, No. 303, Miscellaneous Portraits.
3. For Genre Subject and Figure Compositions, W. W. Winter, Derby, England, No. 608, "My Mammy."
4. For Work by Ladies, Mrs. S. M. Cleveland, Philadelphia, No. 311, Entire Exhibit.
5. For Enlargements, W. H. Rau, Philadelphia, Nos. 340 to 343.
6. For Lantern Slides, Prof. H. A. Rowland, Baltimore, Md.
7. For Applied Photography, Scientific and Technical, Prof. Henry A. Rowland, Johns Hopkins University, Baltimore, for Photographic Maps of the Normal Solar Spectrum, Second Series, 1888.

DIPLOMAS FOR EXCELLENCE, FOR ENTIRE EXHIBITS.

Frank M. Sutcliffe, Whitby, England; J. P. Gibson, Hexham, England; William Parry, Shields, England; John Bartlett, Philadelphia; Charles L. Mitchell, M.D., Philadelphia; George B. Wood, Philadelphia; Paul Lange, Liverpool, England; Robert S. Redfield, Philadelphia; Richard Keene, Derby, England; Harry Symonds, Portsmouth, England; S. V. Burnham, Lick Observatory, California; Rev. F. C. Lambert, M.A., Cambridge, England; George A. Nelson, Lowell, Mass.; A. K. P. Trask, Philadelphia; H. A. Latimer, Boston, Mass.; Mr. and Mrs. Anckhorn, Arbroath, Scotland; Clarence B. Moore, Philadelphia; R. T. Hazzard, Philadelphia.

JUDGES.

James B. Sword, John C. Brown, Xanthus Smith, Fred B. Schell, and George W. Hewett.

The number of separate photographs shown is estimated at 1,500. An estimate of the different alkalies used in the developers of negatives based upon the data printed in the catalogue shows 63 in favor of potash; 48 for soda; 4 for soda and potash combined; 21 for ammonia; 12 for oxalate and iron; and 21 for hydroquinone in place of pyro. One used the hydroxolamine developer. Developers used for lantern slides were 2, with pyro and soda; 13, oxalate and iron, 14, hydroquinone and soda or potash; and 10 in favor of the collodion process. It will thus be seen that a majority of the

American exhibitors prefer potash as an alkali, which has grown in favor since the first exhibition, three years ago, at which time the users of potash and soda were about equal. For lantern slides, hydroquinone appears to be the favorite, though it is nearly equaled by the users of oxalate and iron. The collodion process is also still extensively used.

F. C. B.

A Method of Making Dark Blue Prints.

BY CHARLES J. BATES.

IT must be said that to obtain any final result some drudgery is inevitable. The hunter who depends on the game he kills or the fish he catches for his living, kills and catches in the best or easiest way, cleans and packs the results, considering that as part of the work in preparation for the market where he gets his profits. But the true sportsman has a feeling of satisfaction in having made a good shot on the wing or skillfully tired out an obstreperous fish, and derives an additional pleasure in the contemplation of a fine buck or a fish that will suggest a story bigger than itself; but this same sportsman will frequently rather give away his game than take the trouble to carry it home. It is a trite simile to compare a photographer to a sportsman, for that has often been done, but in the home work of the photographer there is much that has no parallel to the efforts of the sportsman, except, may be, in the feeling of satisfaction over the results.

Many persons carry their cameras far to get a picture. Having "pressed the button" they take no further interest in the matter until the finished print is placed in their hands. I have known others "stalk" a picture, study their view, and if the case is difficult, with irregular or uncertain lighting, they will study the development with a care almost inconceivable, and having finally secured a good negative, it is a matter of entire indifference whether they ever make a print. The majority of persons, however, who take an intelligent interest in photography, like to see the positive, that it may be compared with the original. This has led me to try to find some way to secure a print that will be pleasing in tone and simple in manipulation. From some hints derived from an old book, the "blue print" was tried nearly thirty years ago, but was discarded for reasons now so well known. Many other experiments were tried, the latest being the following, the results, however, not being so eminently satisfactory, but I am cheerfully willing to give away my game rather than to carry it home.

Some experiments, as well as the known fact, proved the hopelessness of any attempts to change the blue color of the blue print, except by operations making the result more trouble than it was worth, or at least to entirely destroy the simplicity sought for. It took little observation to discover that the blue color was transparent, so it occurred to me that the blue could be combined with another color that would result in a more satisfactory tone.

The nature of the solar spectrum suggested using orange (orange being complementary to blue), so by making blue prints on an orange-colored paper a very good tone was secured, but with the very serious objection that the high lights retained the orange color. Other papers were tried, but the best results came from a gray paper, which gave a very good blue-gray tone, with the same objection, however, that was found to the color of the high lights, though not so serious, as in the case of the orange. It then occurred to me, could not some substance sensitive to light be used, that would give a color where color was wanted, and on washing would leave the lights white or nearly so? The only substance at present known to me is bichromate of potash. This is nearly as sensitive to light as a blue print, and as it was a hopeless and at least difficult task to make a bichromate print first and then a blue print correctly over it, a series of experiments were tried by mixing the bichromate with the blue print solutions in various proportions, as shown in the table appended hereto.

It being known that a saturated solution of bichromate of potash spread on paper would make a clear print of a strong yellowish-brown tone, the solution in experiment No. 1 was tried; the resulting paper proved very insensitive to light, due no doubt to the failure of the solutions to soak well into the paper. The outer surface was affected by the light protecting the substrata, so that unless exposed for a long time the picture all washed off. This was largely obviated by adding water as shown in the solution of experiment No. 2. The resulting tone here being too blue, the amount of bichromate was increased, as shown in No. 3, but with the same objections that were found in No. 1, so further dilution was resorted to as shown in No. 4, but the color being still too blue, and having learned a lesson from No. 3, a reduction of the ammonia citrate of iron was tried, as shown in No. 5. The above general principle was carried on as shown in the succeeding solutions.

Want of time has prevented further experiment, but I think that by using a stronger solution of the red prussiate, and proportions like those in the latter part of the table, good results might follow.

TABLE OF PARTS OF SOLUTIONS USED FOR EXPERIMENTS.

NUMBER OF EXPERIMENTS,	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
a Saturated solution potash bichromate (fluid ounces),	1	1	2	2	2	2	2	2	4	4	3	4	6	6	4	2	4	3	3	2	2	3	3	2	2	2	2
b Water (fluid ounces),	0	2	2	3	3	4	4	4	4	4	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
c Solution red prussiate potash 1 in 10 (fluid ounces),	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	4	6	4	4	4	4	4	4	4	6
d Citrate iron and ammonia (grains),	40	40	40	40	30	30	20	10	10	16	20	20	20	40	40	12	12	12	12	0	4	2	4	2	6	8	4

A large number of prints were shown as examples of the effect of varying the proportions of the different solutions and ingredients.

Read before the Society of Amateur Photographers of New York, May 14, 1889.

THE

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W. H. BURBANK, MANAGING EDITOR. F. C. BEACH, ASSOCIATE EDITOR.

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EDITORIAL COMMENT.

A correspondent asks if it would not be a good idea for the amateur photographers of America to form a society like the League of American Wheelmen. There seems to be no reason why such an association, properly organized and managed, should not do as much for amateur photography as the L. A. W. has done for 'cycling. Reduced rates at hotels could be obtained for members, hotel proprietors could be induced to provide dark rooms, annual exhibitions might be held, and an impetus given to amateur photography which could not but prove beneficial. On the whole we see no strong objections to the plan, and will gladly do all in our power to further the project, and to that end we invite correspondence and suggestions from our readers.

The amateur photographer has fallen a victim to Hamilton's facile pencil, who has in the *Judge* of May 18th, a double page cartoon of the amateur photographer in various interesting situations. The kindly humor of the cartoon is imitable, and touches lightly some of the weak points in amateur photography.

We have been much interested in a suggestive paper on "Amateur Photography in its Educational Relations," written by Prof. Charles F. Himes, and published in the *Journal of the Franklin Institute* for May. We wish that all our readers could read and ponder this thoughtful article which strikes so high a note. While we would gladly reproduce the article in its entirety, space permits only a few brief extracts which embody the aim of the AMERICAN AMATEUR PHOTOGRAPHER much better than any words of ours could.

"In this Augustan age of photography, with its perfected technique, with plates and processes and apparatus that leave scarcely any quality to be desired for any purpose, at the command of all, is there nothing left to require and develop the highest qualities in its devotees? Certainly there is as much in it as at any time. The ground has simply changed. There are broader applications to be made; there are more subtle conditions to be considered;

there are higher excellences than those of mere technical success; there are demands for work of higher merit than that embodied in mere sharpness of definition or gradations in development. . . . . Success does not consist in the number of shots that can be made on an excursion, but in what there is in the results to give them any value. The cheapness of plates and the ease of exposures are not promotive of the highest class of practice. A restraint should be put upon the enthusiastic sort of drag-net tendency to take everything, and trust that something will prove desirable."

This is well spoken, and it is this higher sort of photography which this journal will make it its special mission to foster and develop. The chief educational value of photography the professor places in the wide range and varied character of its operations, which demand patience, readiness of resource, thoughtfulness, and judgment for their successful practice. Altogether the article is a notable contribution to the literature of photography, and deserves a wider notice than it is likely to receive.

As our motto is Reliability we wish our friends to understand that, so far as possible, every formula printed in these columns will be previously tested by a practical photographer of many years' experience, or by ourselves. We do this in the interests of our readers in order that they may be spared the time, expense, and disappointment of experimenting with imperfect, faulty or worthless formulæ. We invite our friends to send us brief and pithy articles of general interest, accounts of trips with the camera, personal experiences, sketches and descriptions of home-made contrivances. In short, anything of genuine merit born of a love for photography and a desire to help others, will find a hearty welcome in our columns. We would prefer that all formulæ be expressed in grains per ounce, as a matter of personal convenience to our readers.

We note that the Eastman Company, with characteristic generosity, offer a solid silver cup, of the value of $150, as a prize for the best collection of prints on their bromide paper, at the Boston Convention, P. A. of A., to be held next August. As will be seen from the cut which will be found in our advertising pages, the cup is of chaste and pleasing design, and the offer should be the means of bringing to the Boston convention a notable array of bromide prints. The same enterprising firm also offer a Kodak camera for the best collection of Kodak prints exhibited at the Buffalo International Fair, to be held in September.

From the Buffalo Argentic Paper Company we have received a number of contact prints, also an 18 x 22 enlargement from a 4 x 5 negative, all made on their enamel paper, and all of unusual excellence. The enlargement is particularly fine, being in many ways superior to the contact print. From a somewhat extended knowledge and practice of photographic printing methods, we predict for this new paper a successful future. In a future number we shall give a description of the working of this paper.

A Safe Dark-Room Light.—An amateur, whose taste runs in the line of using photography as an exact science, informs us that a light he has ascertained by experiment to be safe for the fastest plates, consists in placing two inches in front of a ruby sheet of glass a piece of orange colored post-office paper. He has an abundance of light, sufficient to read fine print quite a distance from the window. This medium answers for artificial or day-light illumination.

Mounting Lantern Slides.—Mr. R. H. Bow, in a paper read before the Edinburgh Photographic Society, which we find reported in the *Photographic News*, suggests an idea of a combined mat and binding strip. He takes a sheet of paper somewhat larger than the slide, folds it into one-quarter the size, then with a small round punch punches a hole through where the round corner of the mat comes. With scissors the opening of the mat is cut out on the same principle that duplicate paper dolls are made. When it is unfolded a mat with extended ends is made. The cover glass is placed in contact with the slide, the paper mat is then laid on the outside of the cover glass; its ends, having been gummed, are then dampened and bent over the edges of the glass and slide, binding them together. A second mask, coinciding with the first, is put over the back of the slide proper, so that the two

glasses are, as it were, in a paper envelope. While this method does, to a certain extent, avoid the separation of the binding strips from the mat, it puts the latter in a bad position, since the scraping action of pushing the slide through the lantern will tend to tear the edges of the mat. It strikes us very thin paper-like copper or brass, cut into suitable strips, would make a very durable binding, and be much quicker to use than gummed strips.

Automatic Apparatus for Making Photographs.—A machine, based, it would seem, on a recent American patent, for automatically photographing one's portrait, is to be used in the Paris Exhibition. It is thus described in a general way by Mr. Leon Vidal in a letter to the *Photographic News:* All the operations are mechanically effected by an electro-motive engine. It is certainly a marvel of ingenuity. The apparatus is started by placing a ten-centime piece in it, and the subject having placed himself in the prescribed place, a ferrotype plate is coated with collodion, bathed, and adjusted to the focus of the lens, when the exposure is made. It is then led into a developing solution, fixed and washed, and in a very short space of time the portrait comes out of an opening of the machine, accompanied by a small frame in which to place it. The ingenuity required to work out all these operations automatically is truly astonishing.

To Dry Gelatine Negatives or Positives Quickly.—It sometimes happens that a print has to be made very quickly from a negative, or perhaps a lantern slide is wanted in a hurry. The process is not a new one, but is not generally known. After fixing the plate in hypo, wash it for a minute or two under the tap, or by soaking in three or four changes of water; then immerse in solution of alum of about fifteen grains to the ounce of water, for three minutes. Remove and wash slightly under the tap. Now rear up the plate in the rack to drain off the surplus water, which will take about three minutes. Then blot off the drops of water on the back and along the edges with a small piece of blotting paper. Pour out in a tray 5 x 8 in size two ounces of alcohol. Immerse the plate in this, film side up, for from three to five minutes. When it is removed the alcohol will rapidly evaporate, and a peculiar mottled appearance will be observed on the surface by reflected light; this is due to the irregular process of evaporation. Place the plate on edge and with a fan (an ordinary palm leaf fan will answer) proceed to create a breeze over the surface of the plate. Evaporation is accelerated. First the heaviest moisture is removed, leaving the film smooth and apparently dry, but the final removal at once commences, which can be noticed by the color and appearance of the film at the edges. Continual fanning will soon dry it, so the entire operation need not take more than five or ten minutes. The alum hardens the film, aiding in expelling the water, and is specially desirable on hot, muggy days. The negative, if it is valuable, should be washed for half an hour after fixing before drying.

W. B. Bolton has an interesting article on the use of old developer, in a recent number of the *British Journal of Photography*. After a careful series of experiments with hydroquinone, he concludes that the practice is not to be recommended on account of the greatly prolonged exposure necessary, and the deficiency of detail noticeable in negatives developed with old developer. Mr. Bolton's conclusion is amply justified by recent experiments of our own, which showed, however, the value of an old solution in cases of known over-exposure. We have also carried on a series of experiments with old pyro developer, and have been led to conclude that in many cases greatly over-exposed plates may be saved by the timely application of a pyro developer in which several plates have been developed. Plates which, on the application of a freshly mixed developer, showed unmistakable signs of over-exposure were repeatedly saved by immediate immersion in an old solution, followed by treatment with an acid alum clearing bath, to remove any discoloration.

The editor of the Photographic Notes of the *Boston Sunday Herald* wishes prints of odd or grotesque negatives, suitable for single column cuts. All prints so used will be duly credited. If proof of the widespread interest taken in photography were needed, it may be found in the fact that many of the most important newspapers now find it for their interest to establish photographic departments in order to meet the public demand for photographic news. The New York *Times*, the Boston *Sunday Herald*, and the Philadelphia

Public Ledger, all have columns devoted to the latest developments in the art. Photographic items are rapidly becoming part of the stock in trade of the daily paper. "*Tempora mutantur.*"

U. S. Photographic Patents Issued in May, 1889. MAY 7th. 402,680—Film supporting frame for photo cameras; W. H. Lewis, Brooklyn, N. Y. 402,711—Photographic camera; Erastus B. Barker, Newark, N. J. 402,712—Ground glass attachment for cameras; M. Bauer, Brooklyn, N. Y. 402,086—Photographic camera shutter; R. D. Cleveland and C. A. Hoffman, Minneapolis, Minn. 402,827—Package for photographic plates; D. C. Hoover, Buffalo, N. Y. 402,961—Photographic plate handle or holder; W. K. Moody, Boston, Mass. 403,061—Making iron prints by photography; C. R. McBlair and A. A. Raff, Washington, D. C.

MAY 14th. 403,476—Photographic apparatus; H. Kuhn, St. Louis, Mo.

MAY 21st. 403,574—Photographic camera; C. E. Burlingame, Boston, Mass. 403,647—Photographic Cabinet; J. Cornish, Boston, Mass. 403,887—Picture exhibitor; G. D. Knipp, Stuttgart, Germany.

MAY 28th. 403,994—Photographic camera; James H. Ford and Max Jurnick, New York.

Hydroquinone as a Developing Agent.—By J. Wilson Swan, M.A., in the *British Journal of Photography of* March 8, 1889. With regard to a definite formula for a *quinol* developer, I may say that Mr. John Green, of Mawson & Swan's Plate Works, has made innumerable experiments with a view to arrive at a formula that would most generally meet the wants of the photographer in the studio and in the field; that would give a fine quality of image, a good color, and develop in the same time as pyro and ammonia. The result of these experiments is the following formulæ:

A.

Hydroquinone (quinol),	80 grains.
Citric acid,	10 "
Sulphite of soda (re-crystallized),	80 "
Distilled water,	20 ounces.

B.

Caustic potash (fused),	160 grains.
Sulphite of soda (re-crystallized),	160 grains.
Distilled water,	20 ounces.

C.

Bromide of potassium,	24 grains.
Distilled water,	1 ounce.

D.

Caustic potash (fused),	160 grains.
Distilled water,	20 ounces.

Fixing solution: Hyposulphite of soda, 1 lb.; water 40 oz.

For normal exposures use equal parts of A and B, adding five minims of C for every ounce of solution. For over-exposed plates use D instead of B, with an extra quantity of C. For under-exposed plates, omit C, and in extreme cases, add six or eight grains more of sulphite of soda to every ounce of developer. Plates showing a tendency to frill should be immersed for one minute in a five per cent. solution of common alum between development and fixing, washing before and afterwards.

NOTE.—The object of decreasing or increasing the quantity of sulphite is to give greater or less density.

To the above, Mr. G. H. Ripley adds the following suggestions: Make solution A, B, and D with one-half the quantity of water indicated in this formula (10 oz. instead of 20 oz.). For a four-ounce developer, take 1 oz. of A, 1 oz. of B, 20 to 30 minimums of C, and add 2 oz. of water. This gives the normal developer. Make solution E: 120 grains of Sulphite of Soda to 10 oz. of water. If the normal developer produces too great density, substitute E for such portion of the added 2 oz. of water as the case requires. American plates will seldom require the use of solution D in place of B.



THE PRESIDENT LEAVING THE DESPATCH.

[illegible] go to press information is received [illegible] by the Eastman Dry Plate and Film [illegible] like paper, [illegible] the advantages [illegible] the nature of the film, but presume it [illegible] specimens of [illegible]

Our readers are [illegible] to send us the names [illegible] sample copies. We wish to [illegible] the co-operation of our readers.

We would be pleased to receive papers from amateurs on photographic [illegible]

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American Films vs. Dry Plates for Out-door Photography.

By G. [illegible]

[Read before the Society of Am[illegible]]

The advantages of Eastman's American [illegible] door photography are [illegible] First [illegible] will weigh three pounds, at [illegible] twenty-four exposures, will weigh two pounds, [illegible]

[illegible] gross of [illegible] dry plates will weigh not less [illegible] and [illegible] dry plate holders of same size, will weigh [illegible] ing the glass dry plate [illegible]

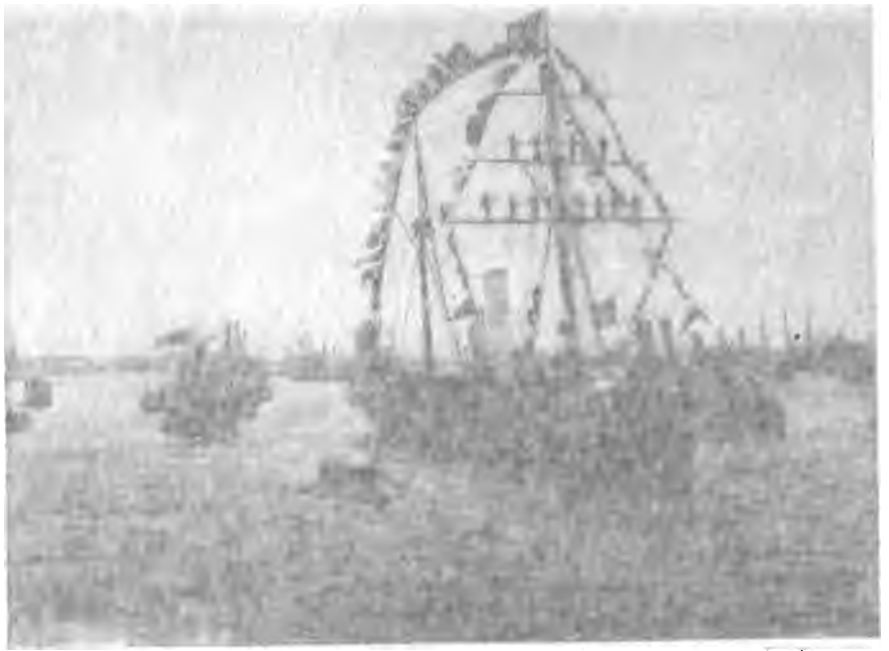
[illegible] second advantage is compactness. [illegible] more room than two dozen [illegible] plates [illegible] double dry plate holders.

The third advantage [illegible] When [illegible] exposures is required, and [illegible] against [illegible] a landscape view is [illegible] image will [illegible]

[illegible] advantage is the easy way the [illegible] little room [illegible] flexibility, and [illegible]

[illegible] Eastman American films of course, and [illegible] different thing. At that time there were [illegible] overcome by the [illegible] the paper would not always strip from the [illegible] entirely [illegible] preventing the [illegible] I will guarantee to strip it [illegible] my observation, where the amateur has [illegible] that the film [illegible] the water [illegible] was that the water was not hot enough. A [illegible] luke-warm water may prove disastrous to the film, as it is [illegible] is not the end desired. I have yet to find a film that cannot be [illegible] treatment. [illegible] the water to the proper heat to dissolve the [illegible] the exposed [illegible] film and paper, and [illegible] the paper [illegible] time.

[illegible] has been carried on for a long time, with a strong soda solution [illegible] to be [illegible] slightly tanned. In that case, soak [illegible] negative [illegible] water containing a few drops of sulphuric acid. In fact I have [illegible] to the back of negatives, just for a moment before [illegible] into the [illegible] water, and I think it possible to strip a paper negative [illegible] sub-



As we go to press, information is received that a new transparent film has just been perfected by the Eastman Dry Plate and Film Company, flexible enough to be used in a roll-holder, like paper, with none of the disadvantages of the latter. We have not been apprised of the nature of the film, but presume it may be an improved celluloid film, as we have recently been shown some specimens of this material which were certainly very near meeting all the requirements of a flexible, transparent film.

Our readers are invited to send us the names of such of their friends as are likely to care for sample copies. We wish to reach as many amateurs as possible, and to that end we solicit the co-operation of our readers.

We would be pleased to receive papers from amateurs on photo topics of general interest.

American Films vs. Dry Plates for Outdoor Photography.

BY G. D. MILBURN.

[Read before the Society of Amateur Photographers of New York.]

The advantages of Eastman's American Films over ordinary glass dry-plates for outdoor photography are many. First to be considered is weight. One gross American films, say 6½ x 8½, will weigh three pounds, and one 6½ x 8½ roll-holder, latest model, capable of holding forty-eight exposures, will weigh two pounds; total five pounds.

One gross 6½ x 8½ dry-plates will weigh not less than seventy-six pounds; and twelve double dry-plate holders of same size, will weigh nine pounds; total, eighty-five pounds,—making the glass dry-plate outfit weigh eighty pounds more than the American film outfit.

The second advantage is compactness. One gross of 6½ x 8½ American films will not occupy more room than two dozen dry plates, and the same size roll-holder no more than three double dry-plate holders.

The third advantage is no halation. When photographing interiors, where long exposure is required, and daylight is shining through the windows, also trees and foliage against the sky, in a landscape view, is where this advantage will be most appreciated.

The fourth advantage is the easy way the film negatives can be packed away for future use, and the little room they occupy. Other advantages could be mentioned, such as durability, flexibility, and the practicability of printing from either side of the negative.

The Eastman American films of to-day, and what they were one or two years ago, are entirely a different thing. At that time there were hardships to be met with in the manipulations, that are now entirely overcome by the manufacturers; such as spots in the film; and then the paper would not always strip from the film, whereas now the stripping of the film is absolutely certain, providing the film is not over two years old; and even then, with the water hot enough, I will guarantee to strip it without any trouble. In every case that has come under my observation, where the amateur has laid claim that the film could not be stripped, the whole trouble was that the water was not hot enough. A prolonged soaking in a luke-warm water may prove disastrous to the film, as it is liable then to leave the glass, and this is not the end desired. I have yet to find a film that cannot be stripped with the proper treatment. Bring the water to the proper heat to dissolve the soluble substratum in between the exposed insoluble film and paper, and lo! the paper will come off like magic every time.

In case the development has been carried on for a long time, with a strong soda solution, the substratum is liable to become slightly tanned. In that case, soak the film negative for a short time in water containing a few drops of sulphuric acid. In fact I have applied the full strength acid to the back of negatives, just for a moment before immersing into the hot stripping water, and I think it possible to strip a paper negative that has no soluble sub-

stratum in between paper and film, with this method. I do not mean to say but what difficulties may arise in this as well as any other photographic process; but what I do claim, is that the Eastman American films of to-day are as certain as any other photographic process, and that very fine results can be produced with it; and with more than 90 per cent. less weight than the glass dry-plate process.

To the tourist and the view photographer this ought to be a serious consideration. The American films are now so sensitive that they can be used with any detective camera.

As I need a camera to make an exposure here this evening in order to demonstrate the developing and stripping of the film, the Kodak camera being of great interest to many, and as the film in this camera is the same as is used in the larger roll-holders, therefore I propose to use the Kodak with which to make this exposure, and I will use flash lights to expose with, as that is considered a severe test on any of the so-called quick plates, as to rapidity. I wish to impress on your mind that I claim that these films are quick, uniform, and reliable, and they can now be had for the larger size roll-holders.

Before I commence my demonstration I wish to make a few remarks about the Kodak; I guess you have all heard of this little wonder. Mr. Eastman, of the Eastman Dry Plate and Film Company, no doubt intended, when inventing the Kodak, to make photography a pleasure for the tourists and operators. I look on this instrument in a different light from some. I do not think it comes in competition with any other camera on this or the European market. It occupies a distinct sphere of usefulness that no other camera has attained. With this little instrument, you can make mementos of the different interesting points on your trip to Europe, to the mountains, or wherever your journey may take you, without making a drudge of yourself, or attracting every one's attention to yourself. The Kodak all loaded for operation, with one hundred exposures, will weigh less than two pounds, and is, as you see, a genteel little instrument, that you need not feel ashamed to take anywhere. It can be taken into places where it would be impossible to introduce your camera, plate-holder, tripod outfit, on account of its size and weight. With the Kodak you can make one hundred consecutive exposures, or you can stop and develop one, two, or any number. It will not take any longer to adjust the film again for future exposures than to reload a dry-plate holder.

I have met with a number of gentlemen who have understood the Eastman Company's advertisement to read, that it is absolutely necessary to expose the full hundred exposures before any one could be developed. Now, such is not the case, as I will show you here to-night. To make the exposure with the Kodak, as well as any other camera, the instrument must be held as still as possible, although the object to be photographed may move and yet get a sharp picture. The best way to hold the Kodak still is to hold it in the left hand, lay the right hand on top and press the Kodak slightly against your person. Press the button with the thumb of the left hand, at the same time apply about an equal amount of pressure on the other side of the Kodak with the fingers (see Fig. 1).

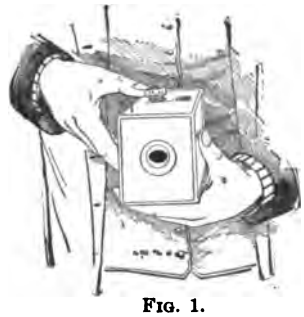


FIG. 1.

I have heard some complaints that some of the Kodak lenses did not cut as sharp as others, and I wish to state that in every case it was because the operator did not hold the Kodak properly and therefore not still when touching the button. The Kodak lenses are so severely tested before leaving the factory that the Eastman Company can in good faith assure you that they will all do the work as recommended.

To make interior pictures, it is necessary to give a time exposure. To do this, press the button repeatedly until the shutter refuses to revolve; stand in some dark place, facing the light; remove the plug and open the shutter wide open with the finger; put on the cap, and you are ready for operation.

With your permission I will now proceed to make the proposed flash light exposure develop and strip it.

When thoroughly fixed, wash in four or five changes of cold water. To strip the film negative, coat a clean glass plate with rubber solution. I advise the amateur to buy this solution, as it is cheap and rather troublesome to prepare. Allow the rubber solution to dry until "dead," say five minutes (longer will do no harm), then flow with plain collodion, made as follows:

Ether,	1 ounce.
Alcohol,	1 ounce.
Pyroxyline,	12 grains.

As soon as set, lay the plate in a tray of cold water, face up; place the fixed and washed American film negative into the water, over the plate, face down; grasp the plate and negative together, by the edges, and draw out of the water, allowing to drain from one end. Squeegee into contact, examine from front for air bells, place under blotter and weight to dry for about thirty minutes. Lay plate supporting film negative into a tray of hot water about 120 degrees Fahr.; if you see that this is not hot enough to dissolve the soluble substratum, raise the temperature until you can see light bubbles appear on paper, then raise the corner of paper and pull it off. Brush very gently with a tuft of cotton dipped in warm water, transfer plate to a tray of colder water, slide a gelatine skin of the proper size into the water over negative, rough side up; allow skin to soak one minute, then grasp together with plate and lift out of water. Squeegee into contact, and stand to dry. When thoroughly dry, flow with plain collodion. When dry, you can cut around edges and peel off glass. If the gelatine skin is soaked too long before squeegeeing onto the negative, it loses the glycerine that keeps it pliable, and will dry hard and brittle. To prevent this, use a soaking solution to slide the gelatine skin into instead of water. Formula for soaking solution:

Glycerine,	½ ounce.
Alcohol,	16 ounces.
Ammonia,	½ ounce.
Water, cold,	16 ounces.

This method gives a very pliable film negative, and it will withstand climatic changes, as it is varnished on both sides with plain collodion.

Mr. Milburn then took a picture of the audience, which, when developed, proved to be a very good one. The picture was developed and stripped in the presence of the audience, and while performing, Mr. Milburn said: "The best developer for the American Films is made as follows:

No. 1.

Sulphite soda (re-crystallized),	8 ounces.
Pure water,	32 ounces.
Pyrogallic acid,	1 ounce.

No. 2.

Carbonate soda (re-crystallized),	¼ pound.
Pure water,	32 ounces.

To develop, take of No. 1, 2 ounces, of No. 2, 2 ounces, and water, 4 ounces.

First immerse your exposed film in a tray of clean, cold water until limp, then place it in developer. If the image appears too quickly, add ten to twenty drops of restrainer, composed of

Bromide potassium,	1 ounce.
Water,	6 ounces.

When sufficiently dense wash it in three or four changes of cold water, and immerse in fixing bath (film side up) until translucent.

Hypo-sulphite,	4 ounces.
Water,	16 ounces.

Home-Made Camera Stand for an Enlarging Camera.

BY JOSEPH P. BEACH.

[Read before the Society of Amateur Photographers of New York, April 9, 1889.]

This stand is a very light affair, made of pine wood, and weighs, without the camera, not more than thirty or thirty-five pounds. It may, therefore, be easily carried by one person to any convenient place for operation.

The enlarging camera—a huge affair, for 10 x 12 plates—5 feet long, weighs one-third more than the stand upon which the heavier camera is easily put into any desired position.

The accompanying illustrations, with the following description, fully explain its con-

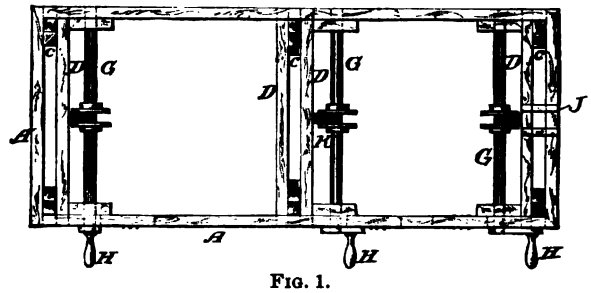


FIG. 1.

struction. Fig. 1 is a plan view; Fig. 2 is a side elevation; Fig. 3 is an end view. The stand is 4 feet long by 20 inches wide. It consists of six upright legs 2 feet 6 inches long, 1¼ inches square, held together at the top and bottom by eight one-inch strips (*A*, Fig. 1), fastened with screws. The bottom is made of half-inch pine boards. Within each pair of

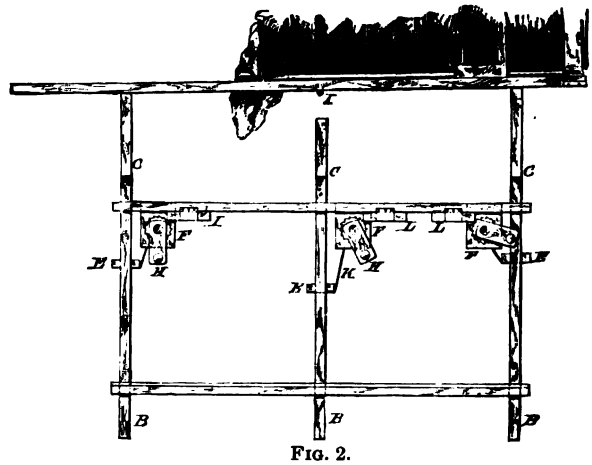


FIG. 2.

legs (*B*, Fig. 2) are frames (*C*), each formed of four pieces of wood 1¼ inches square. These frames are 15½ inches wide by twenty inches in length. At the top these frames pass through an opening formed by other inch strips, (*D*) screwed on the inner side at the top of the leg posts. The bottoms of the frames have, on each side, other inch strips (*E*), so that the

frames, when moved up or down, are guided vertically and cannot move except in an up and down direction. Upon the sides, at the top, are screwed six pieces of half-inch pine, 4 x 5 inches (see *F*, Fig. 2), pierced with inch round holes. Through these holes run three round wooden curtain rollers (*G*, Fig. 1), having three hard-wood ratchet wheels, and three soft-wood handles (*H*).

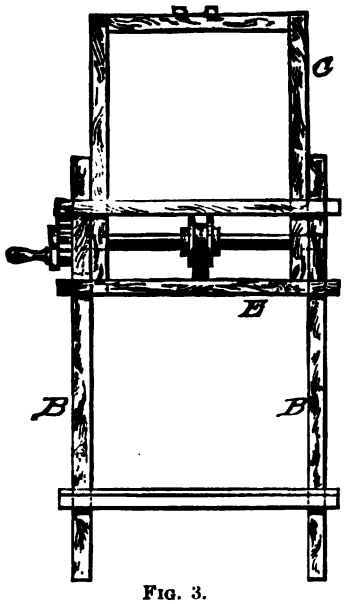


FIG. 3.

The central frame is furnished with two sockets an inch round. Across the bottom of the track of the enlarging camera another inch round roller (*I*) is screwed, three feet forward of the lightest end of the camera. When the camera is placed upon the stand this roller or pivot descends into the sockets. At either end the camera is kept in place by a couple of pieces of half-inch wood (*J*), which permits of a forward or backward play, but no side play. Attached to the under side of each of the three frames is one end of an inch wide leather strap (*K*). The other end of each strap is made fast to an inch roller, which is furnished with suitable guides.

To raise the camera, it is only necessary to turn the two forward handles, and when the required height is reached, two wooden bolts (*L*, Fig. 2), an inch square, lock the ratchet wheels at any point. If required, either of the uprights can be raised or lowered to unequal heights, or only the central one raised. Then the camera will be found pivoted at or near its gravity center. Being thus pivoted, the camera may be pointed out of a window at any desired angle in the direction of the sky. Notwithstanding its very light construction, this camera stand being put together with screws is very firm, and admirably answers every purpose for which it was designed. It is to be put upon rollers, and upon the bottom shelf will be erected some light receptacles for the storage of lenses, ground glass, negatives, mats and other paraphernalia useful while the camera is being manipulated for enlarging, reducing or other purposes.

CORRESPONDENCE.

[New York Letter.]

CENTENNIAL NAVAL PARADE PHOTOGRAPHIC EXCURSION.

It was a very popular and attractive idea for the New York Society of Amateur Photographers to charter a special steam passenger-propeller, the Philadelphia, to convey their members and friends down New York bay, on a special photographic expedition, to witness and put in permanent form on the sensitive plate, the picturesque incidents attending the beautiful naval display to be found on the water on the 29th day of April. The only regret of the committee was that a boat twice the size was not obtained, since many applicants were refused tickets.

But those who went, and saw the show, will never forget the stirring and picturesque scenes that constantly presented themselves to the eye. The novelty has never been equaled since the unveiling of the statue of Liberty, and we recall no event when the weather was so well adapted for the purpose since the opening of the Brooklyn Bridge, in May, 1883. The morning of April 29th opened somewhat hazy and cloudy, with a gentle south-west wind, which increased in force as the day advanced. Later the heaviest clouds dispersed,

leaving just enough light, floating clouds to give that beautiful relief to the sky of a marine view which is so much desired, and occasional bursts of sunshine afforded opportunity for those wishing sunlight to make their exposures. The excursionists were on hand early at the foot of East Thirty-First Street, and half an hour before the time for starting the boat was well filled. Nearly half of those present were ladies, among whom were several expert amateurs. As usual, although the boat did not leave the dock for fifteen minutes after the stated hour (9.30) there were some that were late. One party, mistaking the directions, supposed the boat left the foot of West Thirty-First Street, hired an expressman to bring himself and camera rapidly over to East Thirty-First Street, just in time to get aboard. Others were left, but by taking the elevated train succeeded in getting aboard at the second landing down town.

Quietly and unobserved the amateur moved around on the dock, taking chance shots with his detective at the boat, and interesting groups. A conspicuous white flag had been provided by the committee, having printed on it in large blue letters, "Society of Amateur Photographers," and was attached to the bow flag-staff of the boat, while on the stern were the national colors and two strings of smaller flags stretched across the after hurricane deck. A necessary adjunct to an excursion of this kind was some convenient place to change plates, and also to have extra plates on hand. The committee darkened two good sized state-rooms for this purpose, which were of special utility, and had an assorted stock of fast plates for those who consumed them rapidly. A caterer had also been provided and served the hungry photographer as well as he knew how. He was a jolly, corpulant looking man, and was doubtless caught photographically before the day was over. It was a few moments past ten when the boat landed at pier 27, East River, to take aboard many more enthusiasts and their friends. Waiting there a few minutes, the boat steamed down the river at quarter past ten, around the Battery, where the crowds standing along the dock, having for a background the United States Barge Office, Produce Exchange building, and the Field building, all decked with bunting, formed a most interesting picture. About this time a troubled amateur was asking if anybody had some cat-gut string aboard, as his shutter had already broken down before the fun had really commenced.

The fine noble new armored cruiser Chicago (the flag-ship of the squadron) was the first interesting vessel photographed, then the remaining war vessels anchored in line were passed, until the Boston, newly painted in white, was reached, which, with her officers and men drawn in line on the deck, was a very attractive object to depict. In passing north again to and around the bow of the Chicago, those wishing to take the sunny sides of the vessels had an opportunity. The ships, decked with various colored flags from stem to stern, made very pretty pictures. The Philadelphia reached a position just to the southwest of the cruiser Boston, when the President's boat, the Despatch, came into view off the north end of Staten Island. Cameras and shutters were then gotten in readiness to catch the manning of the yards by the sailors, and the saluting of the President, as the Despatch passed the war vessels. Many shutters clicked at the same instant that the cannon boomed, resulting, it is hoped, in the obtaining of some very effective photographs. The hundreds of steam vessels of various kinds following the Despatch made a very curious picture. At the conclusion of the salute the Despatch turned up the East River, passing near the Battery, taking a position in the river opposite the foot of Wall Street, where she came to anchor. Soon the hundreds of vessels following crowded in upon her, many colliding with each other. At last a space was cleared and the interesting event of the landing of the President was witnessed; the Philadelphia having, by the skillful management of her captain, obtained a splendid position for the purpose. One person having a Kodak, made exposures every few seconds of this event, showing the start of the President from the Despatch and the rowing of the boat across her bow, on the way to the pier. The twelve sea-captians in beaver hats produced a very novel effect.

Before the President was taken ashore, another boat, manned by twelve marines, took ashore the Secretary of State, or his representative, and as the whistles of the numerous boats all blew simultaneously at this time, many supposed it was the President, and shot off their last plate. Their chagrin was complete when the President followed a few moments later. One of the iron steamboats careened over so much from the weight of the people on

one side, while watching the President leave the Despatch, that its outer guard rail was several feet under water.

At the conclusion of this event the vessels rapidly scattered, some continuing on up the East River around the stake-boat anchored opposite 30th Street, thence down, and up the North River around the second stake-boat, passing on both sides the naval vessels anchored in line. The Philadelphia landed half of the excursionists at Pier 27, and thence went up the North River, giving an opportunity for photographing the war vessels a second time. She returned to Pier 27, and ended the excursion about 4 P.M., at the foot of East 31st Street. Several yachts anchored in a string off Governor's Island, decked from stem to stern with signal flags, made one of the interesting incidents photographed. The crowded boats and crowds along the Battery was another. Among those on board from other cities were C. R. Pancoast, of the Waterbury Photographic Society, W. H. Rau and Mr. Dripps of the Philadelphia Society, and Mr. E. F. C. Davis of Pottsville, Penn.

Thus ended one of the most successful water field-excursions ever undertaken by the society. Everybody seemed to be satisfied, and all enjoyed the sight of the naval vessels, and the chance to photograph them so nicely. Quite a large sum was turned into the society's treasury by the committee, who are entitled to considerable credit for the excellent way in which the excursion was managed. The individual members of it were F. C. Beach, A. L. Simpson, C. S. McKeene, and E. B. Gallaher.

GRAND RAPIDS LETTER.

Dear Sir,—Our Photographic Club held their usual meeting the evening of May 20th. Nothing of great interest came up. A rather laughable history was furnished by one of the members, however, of his experience in the taking of a "flash picture of a bubble," as mentioned in my communication of proceedings. He had gone home fired with zeal to secure a picture of the bubble at all hazards, so the next night he sailed in. He had been kept down town a little late and found his wife just about asleep over a book, and it was not many minutes after his arrival before she had retired to bed, from whence, as the bubble business proceeded, she would occasionally advise him to "stop that foolishness" and "come to bed." But he was going to capture that bubble. He laid the scheme all out beforehand. He would go at it systematically. He would first make the "bubble solution," then after trying the blowing of a few big bubbles he would set a chair upon a table, cover the seat and back of the chair with a woolen shawl of some kind; then set up some object on the seat of the chair, with the cloth over the back forming a background; then by setting up his camera he could easily focus on the object, say a lighted lamp; then prepare his flash powder and arrange it in proper place for setting off; then he would remove the lamp from the chair, blow a bubble, say about the size of his head, drop it into place, step back, flash his powder, and there you are—all perfectly simple, and visions of glorious negatives of mighty bubbles rushed through his brain.

Well, how did the affair work, any way? Along toward the "wee sma' hours" a tired and disgusted man crawled into bed alongside his snoring wife, and in probably less than "two jerks" was sound asleep. The next morning, about the first thing he heard was "Well, how did your old bubble scheme work—did you get anything?" and after collecting his scattered senses he made reply: "Naw, didn't get a durned thing." "Why, what was the matter, wasn't your plates quick enough? didn't the powder flash? did you forget to draw the slide in your plate-holder? (this was a reminder of a former exploit). Plate—powder—slide—yes—no—I guess so—well, to tell the truth, to save my life I couldn't get a bubble as big as a base-ball, and even they wouldn't last a second." "Why, that was funny. What soap did you use?" "Oh, I used every cussed soap I could find. I started in with Pears' toilet soap; then I went down in the kitchen and got some Ivory and thought I just had it, but I hadn't; so then I went down in the cellar and got a piece of old yellow washing soap, for I knew that was the kind I used when I was a boy, but it was no use. I put in glycerine (not nitro, although I almost wished it was before I got through with the job), and then I guess I cussed a little and went to bed. What do you s'pose ailed it, any way?"

The wife thought a little while, then suddenly asked, "What *water* did you use?" "Why, *that* water, of course," pointing to the faucet which supplied the city water, and which I may incidentally remark is so hard it has to be pounded to pieces before it can be drank. "Well, hubby, the next time you go to make bubbles," dryly remarked the wife, "just you use a little brains, along with some old yellow soap and *rain water*, and you will have better luck."

Yours truly, J. B. BARLOW, *Secretary*.

WHAT AMATEURS ARE DOING IN CHICAGO.—THE CHICAGO LANTERN SLIDE CLUB.

Having recently received a number of inquires from Eastern clubs as to what has become of the Chicago Lantern Slide Club, I take the liberty of sending you a few facts which may be of interest, not only to inquiring friends, but many who frequently ask why Chicago has not a Camera Club, with rooms constantly open, and attendants to welcome the stranger within our gate.

During the past three months our club has had most interesting monthly meetings, but as we give most of our spare time to the lantern slide, and at our regular meetings expect to enjoy the benefits derived from our membership in the American Lantern Slide Exchange, there has been little of interest to other clubs; therefore no reports in the photographic journals. We are glad, however, that the omissions have been noticed, and appreciate the friendship of inquiring clubs. That we are alive and prospering as a club: that the regular monthly meetings are a source of great pleasure, can be attested to by the fact that we now have eighty-seven members, and our club rooms well filled the third Tuesday evening in each month. Many are now anticipating semi-monthly evenings for informal testing of slides and social meeting.

Our members have had in anticipation the acquiring of a permanent club room, something after the plan of other cities, but not quite so elaborate ideas as the new Camera Club prospectus sets forth. Such an organization would be the finest of its kind in the world, and the expenses such as to demand that each member be very rich and not of the ordinary stamp. Doubtless some of our members will go into it, but from present appearances the Chicago Lantern Slide Club will continue to creep along, devoting its meetings to enjoyments in slide work, retaining its membership in the American Lantern Slide Interchange, and hoping to reach that financial strength that will warrant a little more extensive quarters so as to admit of demonstrations and experiments in photography. Most of our members have their own dark room, subscribe to one or more of the photographic journals, and as to the luxury of inviting visitors into a fine dark room and club rooms, why! they are gladly welcomed any time in the commodious dark room and pleasant reception room at Messrs. G. A. Douglass & Co.'s warerooms. Then there is the Photographic Club of Chicago, just out in new clothes, and from reports they, too, have demonstrations. Doubtless the other stock houses are always glad to welcome an amateur. So to our friends in the East we say, "Look at our next season's contribution to the Interchange, and we hope to show an improvement in the making of that little gem of photography. One writer has aptly said: "The story of the world must largely be told in pictures. They speak the only universal language." So we can say: The knowledge of places is now being rapidly taught by the lantern slide.

W. A. MORSE,

Secretary Chicago Lantern Slide Club.

BOSTON LETTER.

To the Editor of the American Amateur Photographer:

Now that the summer is here, the members of the Camera Club are resorting to outdoor work, and except for the enthusiasts who still use the studio to "shoot" their friends, and an occasional reader, the club rooms seem almost deserted. Mr. J. C. Lee, one of our most expert members, having successfully transfixed a large number of the newsboys in excellent

poses, has set himself to studying the Italian of the north end. This afternoon he expects to catch some of them in the act of eating their favorite macaroni. A new idea is advocated by Mr. Wm. Garrison Reed, the treasurer, who is all the time studying some new scheme to render the doings of the various members more in the line of fixed laws. He has been experimenting with the use of plates 5x5 inches, and finds that in the making of lantern slides, this size of plate when used for the negative, is very much preferable to employing many different sizes. An uniform reduction can then be made, more work can be done, and the use of all the different sizes of mats can also be done away with. It certainly does seem a good plan, especially when a very large screen is used, as the eye will get accustomed to the limitations of the picture. The facts in regard to the attempts to work a combination among the photographers and printers in this city are gradually leaking out. It seems that a paper has been presented to most of the printers for signature, in which they are to agree to maintain a certain rate for amateur work in excess of that charged the trade. They are also to promise to refrain from giving to any amateur, points regarding the making of negatives or wherein his may be faulty. The number of apprentices to the trade is to be limited, and no new help is to be employed without the consent of the other parties to the agreement. A large forfeit is to be the result of breaking the agreement.

Another paper was presented to my informant, who is one of the most popular printers for amateurs, with the request that she take her oath not to divulge any of its provisions. Failing to do this she was not shown the paper. I have it from another source and on good authority that this paper contains an agreement to be entered into by the professionals, to charge certain fixed rates. The different artists are graded according to the quality of the work done. Some time since an evening paper published interviews with the leading professionals in which they declared themselves averse to such a plan, but my informant states that some of these very men are signers of this last paper. All this comes from the fact that amateurs are developing such wonderful skill in the art, that it is seriously interfering with the trade, although the trade must certainly give the amateur world the credit of making some of the best inventions in the art. One printer told me to-day that he received more points from the amateur than from any other source. As a rule the professional, if he gets a secret, keeps it to himself as a part of the trade, but the amateur is only too anxious to impart it to the members in the club and merit the praise of a new discovery.

Our club is to have the last meeting of the year on Monday evening. There will be quite a number of slides exhibited by Mr. Plimpton and other members. The ladies are invited, and a collation will be served. The membership is now 104, and as the limit is 110 the first month of the fall will see it full.

GREENOUGH.

SOCIETY REPORTS.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

Lantern Slide Exhibitions. Blue Prints. Stripping Films.

The special committee on papers and publications reports that during the month of May the society has been active in giving special lantern slide exhibitions. On May 3d Mr. W. T. Wintringham, of the Brooklyn Academy of Photography, entertained the society with an exhibition of one hundred and twenty slides from his own negatives, illustrative of a variety of work, some of which included interesting blizzard scenes in Brooklyn, a very fine landscape as it appeared after an ice storm, a number of instantaneous yacht studies, several excellent views of the Seventh Regiment, and some remarkably good studies of base-ball players in action, and also trotting horses. Many of these negatives, it is estimated, were made in the one two-hundredth part of a second. Mr. Wintringham explained that he generally employed the lens (5¾ inches equivalent focus) at its full aperture, five-sevenths, when he made his quickest exposures, and was usually half an hour in developing the plate. His

method is to put four 4 x 5 plates in one tray and develop all at the same time with a developer remarkably weak in pyro, scarcely one grain to the ounce (using the citro-sulphite pyro solution), and in potash about three grains to the ounce. He uses less of the potash at the beginning (perhaps 1½ grains to the ounce), then increases it by about two grains, until the image appears well out. The negatives are fixed in hypo, 1 to 6, and then immersed in an alum bath to harden the film. By this process he gets negatives that are apparently too thin to make vigorous silver prints, but which yield excellent lantern slides. His slides were developed with hydroquinone and potash, on both Eastman's and Carbutt's lantern slide plates. His camera and shutter for instantaneous work were both designed and built by himself. His slides were very uniform, and for dry-plate work were unusually crisp and brilliant.

At the conclusion of the exhibition a very cordial vote af thanks was accorded to him. The Society's lantern was used, operated by Mr. Beach, Mr. A. L. Simpson, and Mr. Cobb.

On Monday evening, May 6th, the lantern slide committee gave a very interesting exhibition before members of the Century Club, at their club house in Fifteenth Street, near Union Square. Many prominent artists attended, and greatly enjoyed the variety of work displayed. Much of the success of the exhibition was due to the interesting comments made by Mr. J. Wells Champney. The committee were very handsomely treated by the representatives of the club after the exhibition.

On invitation of the Press Club, the committee, on behalf of the Society, repeated the exhibition before that club, located in Nassau Street, Wednesday evening, May 8th, and was cordially thanked for its efforts in entertaining the members.

The regular monthly meeting of the Society was held on Tuesday evening, May 14th, at eight o'clock. President Canfield occupied the chair. Mr. Charles J. Bates read a paper on "A Method of Making Dark Blue Prints" (see page 17), in which he gave a formula for sensitizing the paper, as follows:

Water,	16 ozs.
Saturated solution of bichromate of potash,	2 drachms.
10 per cent. solution of red prussiate of iron,	4 drachms.
Citrate of iron and ammonia,	12 grains.

The paper is coated in the usual way, either by floating on a bath or by brushing over with a camel's-hair brush. It will keep in good condition six months or longer. The bichromate of potash is the element that makes the prints a darker hue. It does not matter so much about the proportions of the other ingredients. Mr. Bates exhibited many specimens. A discussion on the use of the swing back of a camera was started by President Canfield. He read a letter from Mr. Grant of Buffalo, who took the ground that a swing back was a disadvantage, since it made certain portions of the view appear out of focus on the ground glass. The President thought this might be true, provided a large stop was employed, but it was beyond a doubt that it was necessary to have a swing back on a tilting camera, if the lines were to be straight or rectilinear.

Mr. F. C. Beach argued that he found a swing back and rising front a very decided advantage, particularly when he attempted to photograph a building on an abrupt hill or eminence. The smallest stop must be employed, else the picture will not be sharp on the edges.

Mr. A. L. Simpson said he always used a swing back and a swing lens front. When the camera bed was tilted he brought the lens front into a vertical plane as well as the ground glass, so that both the plane of the back of the lens and the ground glass were parallel. Then he employed a lens somewhat larger than was needed to cover the plate, and if he had occasion also to use the rising front, his lens would cut sharp to the edges. In many cameras the swing lens front was omitted. Mr. H. N. Tilman found a swing back very useful in making objects in a foreground sharp.

Mr. G. D. Milburn read a paper on "American Films vs. Dry Plates for Outdoor Photography" (see page 23), following it with an interesting demonstration of making an exposure, with a magnesium flash light, of the audience, among which were several ladies. After the exposure (which was made with a Kodak camera), the lights were put out, and the exposure was developed before the members assembled around a raised table. It was fully

timed, and a fine negative. After fixing it, Mr. Milburn proceeded to prepare a glass plate for stripping. He first flowed it with the rubber solution, which was allowed to dry, then with collodion, and as soon as the latter was set, which took scarcely a minute, he laid the plate, film side up, in a tray of cold water. Immediately he placed the film negative on paper, face down, upon the collodion film under water and raised both out, brushing off the back of the paper with a rubber squeezer. Formerly, he said, it was thought necessary to wait till the alcohol and ether in the collodion had soaked out before applying the film paper, but he had found it made no difference in the end not to wait. The next step was to immerse the plate and paper in a bath of very hot water. In less than a minute the paper floated off, leaving the picture film attached to the plate. The secret of stripping, he emphasized, was in having the water boiling hot, and urged upon all to remember it. After removing the paper, the plate was at once laid in cold water for a few minutes, then a gelatine skin was first made limp by dipping in water and then pressed down, under water, upon the picture film. The plate was next removed and the gelatine film was rubbed over with a rubber squeezer, to insure even contact with the picture film. It was set up to dry, and when dry the whole was readily stripped from the glass. Several negatives were successfully stripped from their paper support, which appeared to be very easily done by Mr. Milburn. Mr. Beach had a few Kodak negatives of the United States steamer Despatch saluting the departure of President Harrison, which Mr. Milburn readily stripped. Altogether the demonstration was very interesting and greatly appreciated by those present, and a vote of thanks was accorded to Mr. Milburn.

Secretary Duffield exhibited one or two cameras, one of which had a latterally sliding lens board.

Mr. J. Wells Champney gave a very interesting resumé of Dr. P. H. Emerson's new book on "Naturalistic Photography," reading occasional extracts from it. When the photographic process was mastered, he said, Mr. Emerson advised that amateurs take but twenty photographs a year. He is to concentrate his thought on each picture, study it out before he takes it, and thereby produce something worth looking at. Some members thought such advise would not satisfy the plate makers. Mr. Champney regarded the book as excellent in teaching original ideas on the art side of photography.

The following report of the special Centennial Naval Parade Committee was presented:

To the Society of Amateur Photographers of New York:

Upon the suggestion of one or two members, early in the spring, it was proposed that the Society organize an excursion to photograph the Naval Parade that was to occur in our New York Harbor, April 29th, in commemoration of the landing of Washington, one hundred years ago. The idea was immediately taken up by Mr. F. C. Beach, who was fortunate enough to secure the passenger propeller, Philadelphia, a month in advance, for the use of the Society. A committee was appointed by the President to carry out the necessary arrangements to make the excursion a success, and each member was assigned his duty. In order to avoid over-crowding, the number of persons for the excursion was limited to two hundred, but the demand for tickets was so great that more than the allotted number was present, being, it is estimated, not far from two hundred and seventy-five, with perhaps one hundred and fifty cameras. The committee was also fortunate enough, through the kindness of Mr. Henry Brodhead, to secure privileges from Admiral D. D. Porter and the Secretary of the Navy, Benjamin F. Tracy, to take certain available positions for photographing the parade. A special flag was made for the occasion, which was placed on the bow of the boat and notified the boats around us who we were.

The Committee, under unexpected difficulties, was obliged to hurriedly prepare two dark rooms on the boat, which were barely completed at the time the boat reached the dock at the foot of East Thirty-First Street. If any members have reason to complain of the ineffectiveness of the rooms for the purpose intended, the committee wishes to have it understood that it was due to no fault of its own, since every effort was made by the member having the matter in charge to make the rooms as complete and comfortable as possible. The Committee provided a caterer on board, and also had an assortment of different sizes of plates on hand for the use of members. This latter feature is something new for excursions of this char-

acter, and was of great convenience to the many who quickly used up the plates which they had brought.

At 9.45 on the morning of April 29th, the Philadelphia, freighted with myriads of cameras, and peopled with many expectant and joyous photographers, quietly left the pier at the foot of East 31st Street and steamed down the river to Peck Slip at Pier 27. Here an additional crowd of some eighty other excursionists were taken aboard, and at 10.15 the boat headed down the river for the Battery. Passing this point, the course of the boat was around the bow of the cruiser, Chicago, anchored at the head of the column of war vessels; thence south, passing all of them in succession, on the west side; thence around the stern of the Boston, at the foot of the column, and up the bay along the east or sunny side of each vessel.

A second trip south, on the west side of the column, brought into view the President's boat, the Despatch, coming around the north end of Staten Island. It was the intention of the Committee to pass to the east side of the column, and push the Philadelphia close to the Despatch, running between her and the war vessels, in order to photograph more fully the saluting of the President's boat by the respective war vessels. But this course was abandoned because of the heavy west wind which would have blown the smoke directly across the path of our cameras. The boat, therefore, was kept on the windward or west side of the column and went along with the Despatch, giving a clear field for the cameras to catch the picturesque manning of the yards and the cannon salutes of the different vessels. Passing around the bow of the Chicago, our boat followed the Despatch, and when we were crowded in among the jam of the vessels as the Despatch came to anchor off Wall Street, we had an unobstructed view of her deck from the bow of our boat. Here photographs of the Secretary of State and staff, being rowed ashore by United States sailors, were made. Then by dexterous maneuvering on the part of our captain, our boat pulled ahead until we had an excellent view of the bow of the Despatch from the stern and quarter-deck of the Philadelphia. It was at this juncture that the President was rowed ashore by the twelve sea-captains, of which many of our members were fortunate enough to secure good negatives.

After the President had landed, our boat returned to Pier 27, landing a number of passengers, and then proceeded on a trip up the North River around the war vessels, returning again to Pier 27, and finally ending the excursion at four o'clock in the afternoon, at the foot of East Thirty-First Street.

As many members exposed the same number of plates at the same time, there was soon a rush for the improvised dark rooms all at once, at times as many as six were in each room, and it was quite a novel event to see a line of six or eight anxious photographers waiting in line outside for those inside to finish changing their plates. One or two accidents to shutters were reported. Soon after the boat had left Pier 27, a member was inquiring if there was any extra catgut string aboard, as his had broken. Another reported that a small crank on his shutter had become loose and prevented him from setting the shutter. Another was afraid that in the excitement of the moment, the plates had become light struck. But considering the many operators and cameras aboard, it is surprising no greater damage was reported.

Having explained the events of the excursion, the Committee as a whole wishes to thank each individual member of it for the interest and care shown in performing their respective duties. To Mr. C. S. McKune is due the credit of providing additional plates and seats and attending to the general comfort of the excursionists. To Mr. Alfred L. Simpson belongs the credit of seeing that a caterer was on board and in aiding the chairman in directing the movements of the boat, and upon Edward B. Gallaher was placed the responsibility of fitting up the temporary dark rooms, which involved considerable labor and time. Mr. Beach directed the movements of the vessel and provided the flag. Last, but not least, the Committee has the pleasure of stating that the receipts from all sources amounted to $412.50, and the expenses (including $150 for the charter of the boat, $22 for the flag, sundry expenses for printing, chairs, dark rooms, etc., $25.99), amounted in all to $197.99, leaving a balance on hand in the Committee's hands of $214.51, which has, through its chairman, been turned over to the Treasurer of the Society, Mr. J. E. Plimpton, for the benefit and use of the Society. Mr. Plimpton's acknowledgment of its receipt is attached to this report.

The Committee suggests that a series of the best pictures made on this excursion be collected and presented to the Secretary of the Navy as an appreciation of his favors and as a souvenir of the occasion. If thought advisable, the Committee also recommends that a portion of the proceeds of this excursion be reserved as an excursion fund, from which any permanent committee on excursions which may be hereafter appointed, may draw such small amounts as may be required for closing in advance any future contracts for traveling expenses that may be necessary. Thanking the Society as a whole for its generous and substantial support of the Committee's work, the Committee now asks to be discharged.

Respectfully submitted,

F. C. BEACH,
ALFRED L. SIMPSON,
C. S. MCKUNE,
E. B. GALLAHER.

NEW YORK, May 10, 1889.

NEW YORK, May 10, 1889.

Received from F. C. Beach, Chairman of the Centennial Naval Parade Excursion Committee, two hundred and fourteen dollars and fifty-eight cents ($214.58), being the net proceeds of the excursion in the hands of the Committee.

J. E. PLIMPTON, *Treasurer.*

On motion of Mr. Charles Simpson a vote of thanks was given the Committee. Prior to adjourning President Canfield announced the election of several new members to the society, and that a special Decoration Day Field Excursion to the Bronx River would be undertaken under the direction of Mr. Grisdale. He spoke of the proposed International Congress at Paris and the objects it was to discuss; said the society had entertained the Century and Press Clubs with lantern exhibitions. A special exhibition is to be held at Chickering Hall on the 28th, in illustration of the Centennial Naval, Military, and Civic Parades. Mr. Thomas Mansell had donated a book to the society's library. The dark room was being improved by the introduction of electric incandescent lamps and new ventilators.

"The Centennial Parades Pictured by the Camera" was the title of one of the most remarkable and interesting special lantern slide exhibitions ever given by the society. The event occurred on Tuesday evening, May 28th, at Chickering Hall, corner of Eighteenth Street and Fifth Avenue, and the hall was filled by a very appreciative and demonstrative audience. Giving an exhibition so soon after the parades was regarded as quite an achievement, illustrating very forcibly the advances made in the photographic processes. The entertainment was given mainly for the benefit of the Washington Memorial Arch Fund, and the net proceeds, over expenses, said to amount to $374, have been turned over to the treasurer of that fund, Mr. William R. Stuart, in trust, to belong to the fund, provided the arch is built, otherwise it will revert to the society. The entertainment was opened by President Canfield, who in a few appropriate remarks introduced Rev. Robert Colyer. He spoke of incidents connected with the life of Washington in his usual happy way, and then introduced Mr. J. Wells Champney, who entertained the audience by describing the views as they were projected on the screen. A 25-foot square screen was employed. The dissolving lantern was operated by Mr. Latham.

The exhibition was divided into three parts, each preceded by an organ solo under the direction of Mr. Homer Bartlett. The first part included the naval parade as seen by the members of the society on the steamer Philadelphia, and was undoubtedly the most picturesque of all. Pictures of all of the war vessels were shown decorated with flags and also when the yards were manned in saluting the President; also views of the Despatch at anchor, with yards manned, when the President was leaving her to go ashore at the foot of Wall Street; the sea-captains with their silk hats on, in the act of rowing him ashore; the landing at Wall Street Pier; procession up Wall Street, and the Sub-Treasury decorated for the occasion.

The second part embraced the military parade, showing the President leaving St. Paul's Church; the Seventh Regiment Guard of Honor; Governor Hill and Staff; the President

delivering his address on the steps of the Sub-Treasury; City Hall decorated, the crowds, and the different troops and Governors. There were views showing the reviewing stands, the several arches from different points, and various interesting incidents. The pictures of the Seventh Regiment and Texas troops were the most attractive. A few miscellaneous slides concluded this part.

The third and last part included views of the crowds on housetops looking at the procession, the women's stand, the Columbia College boys and "School Boys," the arches, and quite a number of the different floats. One of the most striking features of the civic parade was the fine showing of the plasterers all dressed in white. Another prominent object was the "World" float, consisting of a huge white canvas ball rolled along.

At the close of the exhibition Mr. Gilder of the Century Club, and Secretary of the Memorial Arch Committee, was introduced by President Canfield, and thanked the society for the surprise they had had in the beautiful and interesting pictures shown upon the screen and for its generosity in donating to the Arch fund the net proceeds of the entertainment. A vote of thanks was unanimously passed and another vote was taken on the location of the proposed Arch, resulting in favor of having it at Washington Square.

It is needless to add that the splendid success of the exhibition was particularly gratifying to the special Committee who labored so hard and faithfully to make it a success from the start. The Committee was composed as follows: Mr. J. Wells Champney, Chairman, Mr. Charles Simpson, Mr. F. C. Beach, Mr. Alfred L. Simpson, and Mr. Harry T. Duffield. Mr. C. W. Canfield also rendered valuable assistance.

Friday evening, May 31st, Rev. E. C. Bolles, a member of the society, delivered a very interesting and instructive lecture at the society's rooms, 122 West Thirty-Sixth Street, illustrated by a large number of excellent lantern slides, on "The Thames from Source to Sea."

The views of the source, 200 miles from London, represented a swampy meadow and a spring, over which was a pump. At the sea end were views of the war-training ships, the extensive piers and locks, a well-known English bathing resort, and a long pier, said to project out from the shore a mile and a half. The boat races were illustrated; many of the old bridges; the new Thames embankment; and glimpses of Windsor castle and other noted buildings and church edifices along the way were also included.

The lantern was operated by Mr. F. C. Beach and Mr. F. F. Cobb. The exhibition was very entertaining and was greatly appreciated by the audience of ladies and gentlemen, which filled the hall to its utmost capacity. A unanimous vote of thanks was accorded to Mr. Bolles as soon as the lecture terminated.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

Minutes of the stated meeting held Wednesday evening, May 1, 1889, the President, Mr. Frederic Graff, in the chair.

The Secretary reported the receipt of a circular containing the programme of the International Congress of Photography, to be held in Paris, France, during the Exposition of 1889, and inviting the attendance of members thereto.

It was also reported that a number of picture exhibits, by Mr. Frank M. Sutcliffe, at the late Exposition, had been presented by him to the Society, and a vote of thanks was passed for the same.

The Committee on Membership reported the election of the following active members: Dr. James J. Nelson, William A. Sullivan, John H. Bradway, Daniel W. Grafly, Dr. Samuel D. Risley, J. H. Hooven, Walter R. Furness, Rev. Henry A. F. Hoyt, William Howard Turner, Joseph Gray Martin.

Mr. W. E. Barrows showed some excellent cabinet portraits made by means of the Welsbach light, by Mr. Rockwood of New York.

Dr. Charles L. Mitchell showed and described Barnett's Universal Film Carrier, adapted for using celluloid films in ordinary plate holders.

Mr. Morris Earle showed one of the Hawkeye Detective Cameras, fitted with a roll holder for paper negatives, and also for use with ordinary holders containing glass plates or films.

He also showed some transparencies called by the makers (Messrs. Williams & Brown) "Linotypes." They were photographic prints on linen mounted as transparencies, with washes of color applied to the back, giving them a pleasing tinted effect.

Mr. Burrows showed an improvement on the flash lamp exhibited by him at a recent meeting, in which the usual rubber tube and bulb were done away with. A spring, released at the proper moment, threw the flash powder upward and outward into the flame. This arrangement allowed the lamp to be constructed in very compact form. The lamp shown was adapted for use with ten to twelve grains of powder. Adjourned.

ROBERT S. REDFIELD, *Secretary.*

THE GRAND RAPIDS PHOTOGRAPHIC CLUB.

Regular Meeting, May 6, 1889.

GRAND RAPIDS, MICH.

Meeting called to order by Dr. J. C. Parker, President.

After regular routine work the Secretary propounded the following: It has been on my mind for some time to produce a photograph of a soap bubble, taken by day light and also taken by flash light, but so far other matters have kept me too busy to accomplish it. What I wish to ask the club is, supposing I make all proper arrangements for making the picture, such as focusing on some spot where the bubble will be at the instant of exposure, perhaps held from the pipe used in blowing it, perhaps laid on a woolen cloth, then when all is ready for the exposure, blow my bubble in place and flash the powder, will the burning or flashing of the powder burst the bubble? and if it *does* burst the bubble, will the picture be registered on the film *before* the bubble bursts?

After a general discussion it was argued that as the bubble would burst (if it did burst) from concussion of the air, that as light traveled faster than the motion of air, the picture would be taken *before* the disappearance of the bubble. It was advised that as many members as possible make a trial of the subject and report their experiences at the next meeting.

Mr. Catlin, a reporter from one of the daily newspapers, who was present, introduced the subject of taking a set of lantern slide views of Grand Rapids, and a very general talk followed.

Mr. Angell stated the fact that some members, lenses and cameras were not adapted to take the proper size view for a lantern slide. President Parker thought it best for each member to take his views of the size best adapted to his camera, when it would be an easy matter for some one member to reduce the views to proper size when a number had been produced.

Mr. Rood made a motion that the club offer a prize of one dozen 5 x 8 dry plates, or its equivalent, for the best negative of any view in or around the city, exhibited at our next meeting; also a similar prize for the best finished slide. The negative to be any size, but must be made after date of May 6th. Carried.

Meeting closed in usual form.

J. B. BARLOW, *Secretary.*

WORCESTER CAMERA CLUB.

Report of Regular Meeting, held May 9th, in Natural History Rooms.

Dr. E. V. Scribner occupied the chair. Messrs. Chetwood Smith and W. H. Howe were elected to membership. The question of holding an exhibition in the spring was then considered. Although the club had already voted to hold an exhibition in May, it seemed best to delay it till fall. Mr. Morgan moved that the motion whereby an exhibition was to be held in the spring be reconsidered. Seconded by Mr. Corbett, and carried by the club. After some discussion the President announced that on account of established precedent no regular meetings of the club would be held during the months of June, July, and August. The question of holding a field-day excursion was next considered. As the excursion of last year was a successful one, Mr. Corbett moved that a committee of three be appointed

by the chair to make the necessary arrangements for a field-day excursion; seconded by Mr. Morgan, and carried. The President appointed Messrs. Abbot, Kendall, and Corbett, to serve as that committee. The club discussed the best location for the excursion, and recommended to the committee that a meeting be held at the southern end of Lake Quinsigamond. Aristotype paper was then discussed, members having had trouble with it, as it often curled and left the mount. The question of home plate-making was then brought up, Dr. Scribner having been successful in making slow plates, and has made lantern slides at a cost for emulsion of about three cents per dozen. He has also succeeded in making a plate of about the sensitiveness of a Cramer 40. Members reported success in toning lantern slides with nitrate of uranium. Adjourned.

PAUL B. MORGAN, *Secretary*.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.

The regular monthly meeting of the above association was held at the Association Rooms on May 9th, with Mr. E. W. Runyon, the President, in the chair, and a large attendance of members. Since the last meeting the Boston Camera Club's lecture, called "Illustrated Boston," had been received by the association. It consisted of about seventy lantern slides, accompanied by a descriptive lecture. The slides were exhibited twice to the members, and by the kindness of the California Pioneers, once to the public in Pioneer Hall. The audience was very enthusiastic, but unfortunately only about seven hundred could be accommodated, and a large number had to be turned away from the door. The association expects to send East a similar lecture, entitled "Glimpses of California," illustrated by slides, in the course of next month.

The time for the competitive exhibition of pictures illustrating Longfellow's "Building of the Ship," was extended for a month.

Various committees were appointed, and notice of an amendment to the by-laws given, creating life members. Mr. Sigourney, of Oakland, was proposed for membership, and the meeting adjourned.

After the adjournment, Mr. Max Boëlte, of New York, exhibited the new Sodium Light to the members present. The light was a bright yellow and very strong, giving plenty of illumination, and not at all trying to the eyes, while tests showed it to be far safer than a combination of ruby fabric and post-office paper.

The Pacific Coast Amateur Photographic Association is always anxious to welcome members of eastern societies visiting San Francisco, and any doing so should call on the Secretary, Mr. G. Knight White, at Room 89, Flood Building.

THE CINCINNATI CAMERA CLUB.

MAY, 1889.

The first meeting of the month was held at the rooms of the club, Monday evening, May 6th, Mr. Bullock in the chair. In the absence of the Secretary the minutes were omitted, and Mr. Kelly was appointed Secretary *pro tem*. One new member was elected. A motion prevailed, as the sense of the club, that its interests would be best subserved by a declination of prizes of money value to members for work done on the annual excursion. A suggestion was adopted that the excursion committee offer diplomas for two or more grades of work done on the annual excursion, and that prints of the same be framed and hung in the club rooms with proper mention. Mr. Bullock, after addressing the committee on the work expected of them, read a paper on composition, especially with reference to lantern clubs. The paper was carefully and intelligently prepared and was well received, although not altogether concurrently. The subject started a lively discussion and more may be expected from it.

The reports of the Treasurer and Librarian showed the club to be in general good condition. Forty-five new members were received during the year, making a total to date of one hundred and eighteen. At the close of the meeting refreshments were served, making the evening one of enjoyment as well as profit.

The second meeting of the month, May 20th, opened with the President and Secretary in their places. Two members were elected. The excursion committee stated their arrangements for the outing on May 30th. Mr. Kelly read a paper following the papers of Messrs. Johnson and Bullock at previous meetings. Mr. Bullock had maintained that general interest in the picture should determine whether it should be publicly exhibited. Mr. Kelly not ignoring the interesting, thought that selections should be governed by the technical and general excellence of the photograph as well. These papers provoked a good-natured and desirable discussion. Dr. L. Boutillier followed, advancing the merit of pictures with life in them. Mr. Fisher thought novelty of subject desirable. Mr. Peck heretically advanced the view that as we cannot all be great artists, if the photograph is good and the maker and his friends are satisfied with it, it ought to be accepted. Mr. Johnson, not disputing any one, thought that the exhibition each year should show study and improvement as to general excellence. The chairman of the exhibition committee rose to motion the thanks of the club to Mr. Kelly and the members taking part in the discussion, giving assurance that each and all the ideas advanced would be considered in their selections.

The Chicago slides were shown at the close of the discussion, following which Mr. Prince gave practical demonstrations with positive films. Mr. Bullock also showed samples of his work with some. At a late hour the meeting adjourned.

H. C. FITHIAN, *Corresponding Secretary.*

NEWARK CAMERA CLUB.

The regular May meeting of the club, held on the 13th, was given up to the discussion of a club outing, the election of new members, and the showing of some recent lantern slide work of members.

For the field-day it was decided to go to Greenwood Lake, on the 28th of this month, there being a considerable variety of woods, and waters, and mountains, and plenty of opportunity for various tastes.

The executive committee announced the election of four new members, making a total of fifty-one on our rolls.

The lantern slides were mostly from negatives made during the recent centennial proceedings. Some very good results were shown from negatives on Cramer 80 plates, and in contrast were some very fine instantaneous views of Newark churches, the negatives being made on the Carbutt B plate, sensitometer 16, of Mr. Sutton, with the Beck lens.

PHOTOGRAPHIC SECTION OF THE MANHATTAN CHAPTER, AGASSIZ ASSOCIATION.

NEW YORK, May 18, 1889.

The regular monthly meeting of the section was held Friday evening, May 17, 1889, at the rooms of the Chapter, No. 103, Lexington Avenue. The subject announced for the evening was Window Transparencies, and President Demarest demonstrated the subject, making one by contact in the printing frame, and developing with the oxalate developer. Before the regular order of the meeting two flash-light groups of the members and visitors present were taken.

The section has just completed its dark room, which is now well stocked with chemicals and apparatus, and offers a convenient and commodious place for work. All persons interested are cordially invited to the monthly meetings of the section, which are held on the third Friday evening of each month. Cards of introduction will be gladly sent to all who apply to the President, W. T. Demarest, 103 Lexington Avenue, New York City.

THE NEW ORLEANS CAMERA CLUB.

Last night, at Tulane Hall, the New Orleans Camera Club gave their tenth complimentary exhibition of magic lantern slides. As is generally the case, a large and appreciative audience witnessed the entertainment and listened to the interesting explanations of the pictures by Mr. W. W. Crane, the lecturer for the evening.

The first slides shown were from the Pittsburg Camera Club, and included many views of still and animated life and scenes of railroad wrecks near that city.

One picture in particular was of a flock of ducks diving for corn in a stream and was taken instantaneously, making a beautiful scene and a fine example of the progress of photography.

Then were shown views in and around Louisville, Ky., and Marblehead, Mass., and studies of photographic composition in the *atelier*.

Lastly, the slides made by Messrs. Carriere and Mandeville, of the home club, which were returned after a long journey around the world, were thrown upon the screen and much admired.

At the close of the entertainment the visitors expressed themselves in terms of the highest commendation of the pleasant evening spent, and eagerly inquired when other opportunities would be given to view similar products of the camera.—*New Orleans Picayune.*

THE CHICAGO EXHIBITION.

By all accounts the recent first annual exhibition of the Photographic Society of Chicago was remarkably successful, and did much to promote a feeling of good-fellowship among the Western photographers. The success of the joint annual exhibitions of the Boston, New York, and Philadelphia Societies has demonstrated the value of association in matters photographic. What these exhibitions have done for Eastern photography, the annual exhibitions of the Chicago Society will undoubtedly accomplish for photographic interests in the West. No Western city could be better adapted than Chicago as the place for such an exhibition. With two photographic papers, the second oldest society in the country, and two younger societies, Chicago has within itself all the elements essential to a successful exhibition. The appeal of the Committee of Arrangements brought together a notable array of pictures, mostly, of course, from Chicago contributors.

To notice all the pictures would be impossible. We have space only for a few brief notes on the most important exhibits. Mr. J. W. Buehler, of Chicago, had two exhibits of more than average quality, embracing views from Florida to Chicago. Dr. H. A. Johnson exhibited a dozen charming Florida views. Mr. M. L. Scudder, Jr., had some striking Mexican views; his bull-fight views and groups of Mexican Indians were a convincing proof of the value of the camera as a traveling companion. Mr. S. W. Burnham's lunar and solar-corona pictures were exceptionally fine specimens of celestial photography. Mrs. H. E. Stevenson's California mountain views showed a keen eye for the picturesque. The capabilities of the new Pizzighelli cold-bath platinum paper were shown in the prints by Mrs. Bartlett. Mrs. F. A. Delano sent in some very creditable examples of portrait and holiday work, which were much admired for effective posing and lighting. Mrs. Hattie Bradwell was represented by two well executed air-brush portraits, and the exhibits of Messrs. J. P. Gardner, W. H. Gardiner, Fred K. Morrill, James Colgrove, C. F. Matteson, E. B. Holmes, R. P. Harley, Ben Manierre, Fowler, and Holmes were, one and all, fine examples of high-grade amateur work. Mr. Geo. A. Nelson, of Lowell, Mass., had a fine conception of "The Village Blacksmith." Miss C. E. Sears, of Boston, sent some Bonheur-like studies of sheep. The two compositions of Mr. J. L. Stettinius, of Cincinnati, "On Papa's Back," and "Coming from the Bath," attracted much favorable notice, as did also the exhibits of Messrs. J. F. Barker of Milwaukee, G. E. Davis of Dubuque, O. L. Hesse of New York, W. H. Walmsey of Philadelphia, Clarence B. Moore of Philadelphia, and Daniel Miller of Baltimore, the two latter contributing some exceedingly good transparencies. English workers were represented by F. M. Sutcliffe, W. W. Winter, E. P. Gibson, and Mr. and Mrs. Anckhorn, of Arbroath, Scotland. Nearly every important branch of photog-

raphy was fittingly represented, including the so-called "Carbograph," a photograph on a marble surface.

The exhibition may be safely written down as a decided success, and the Chicago Club are to be congratulated on the outcome of their effort to hold an adequate exhibition of modern photography in its best phases. The prizes were awarded as follows:

FIRST PRIZES—W. W. Winter, Derby, England; Frank M. Sutcliffe, Whitby, England; E. P. Gibson, Hexham, England; D. R. Clark, Chicago; S. L. Stein, Milwaukee, Wis.; E. L. Fowler, Chicago; G. B. Wood, Philadelphia; Mrs. N. Gray Bartlett, Chicago; J. W. Taylor, Chicago; S. W. Burnham, Lick Observatory, Mt. Hamilton, Cal.; Miss C. E. Sears, Boston; H. B. Chamberlain, Shullsburgh, Wis.; S. Ward, New York; F. K. Morrill, Chicago; John L. Stettinius, Cincinnati; G. A. Nelson, Lowell, Mass.; J. G. Steward, Chicago; F. D. Foss, Chicago; J. W. Buehler, Chicago; Willis & Clements, Philadelphia; Geo. B. Wood, Philadelphia; G. H. Liddell, Chicago; J. Maul, Chicago; W. A. Cooper, Chicago; Mrs. Hattie Bradwell, Chicago; A. H. Binden, Boston; C. B. Davis, Dubuque, Iowa.

HONORABLE MENTION—C. Areouet, Aurora, Ill.; S. W. Wetmore, Joliet, Ill.; M. A. Seed Dry Plate Co., St. Louis (not competing); C. B. Moore, Philadelphia; J. H. Smith, Chicago; M. L. Scudder, Jr., Chicago; J. W. Taylor, Chicago; P. B. Greene, Chicago; E. Burton Holmes, Chicago; G. B. Wood, Philadelphia; Mrs. Frederick Delano, Edgewater, Ill.; C. F. O'Keefe, Port Madison, Iowa; E. L. Fowler, Chicago; Frank M. Sutcliffe, Whitby, England; Mr. and Mrs. Anckhorn, Arbroath, Scotland.

DEALER'S PRIZES—Lilliput Camera Prize, $25.00 in gold, Wells B. Siler, Chicago. Harvard Dry Plate Co.'s Prize, $50.00 in gold, no award; $25.00 in gold, J. H. Smith, Chicago. The Blair Camera Co.'s Prize, 5 x 7 camera, O. P. Scott, Chicago. Stanley Bros. Dry Plate Co.'s Prize, $50.00 gold medal, W. A. Howe, Chicago; $25.00 gold medals, J. H. Smith, and J. W. Taylor, Chicago. Gayton A. Douglass & Co.'s Prize, Laverne lens, Mrs. N. Gray Bartlett, Chicago. Sweet, Wallach & Co.'s Prize, Imperial lense, Mr. Mc. Gowan, Chicago. The Eastman Dry Plate and Film Co.'s Prize, Kodak camera, W. H. Walmsley, Philadelphia. N. C. Thayer & Co.'s Prize, $50.00 in cash, E. L. Fowler, Chicago.

BOOK NOTICES.

Héliography Vitrifiable. Geymet. Paris: Gauthier-Villars et Fils. 2 fr., 50c.

Traité Pratique de Platinotypie sur Email. Geymet. Paris: Gauthier-Villars et Fils. 2 fr., 50c.

Nouveau Guide Pratique du Photographe Amateur. Second Edition. G. Vieuille. Paris: Gauthier-Villars et Fils. 2 fr., 75c.

A B C de la Photographie Modern. Third Edition. W. K. Burton. Paris: Gauthier-Villars et Fils. 2 fr., 25c.

From the well-known Paris publishers of photographic and scientific works we have received the above four books, of which the two first mentioned are the most important, being contributions to the literature of an obscure application of photography.

In "Heliography Vitrifiable" M. Geymet gives the results of his latest researches in the method of obtaining vitrified pictures by the aid of photography. The book is divided into two parts. The first part contains minute instructions on the preparation of the enamel support, and the second part treats of the preparation and application of the colors. The work is supplementary to M. Geymet's other brochures on the same subject, and the series forms a complete library on the decoration of china, porcelain, and enamel, with vitrifiable colors.

The "Traité Pratique de Platinotypie sur Email" contains a complete and practical exposition of the method of obtaining burnt-in enamels by the so-called substitution process,

which consists essentially in substituting a salt of platinum, iridium, palladium, or uranium for the silver salt in a pellicular film, which is then transferred to a suitable support and fired in a muffle. Detailed instructions are given concerning all the manipulations; causes of failure are pointed out, and altogether the book is the most complete treatise on the subject which we remember to have seen.

M. Vieuille's little guide is clearly and simply written, and as a guide to young French amateurs it is all that could be desired. For Americans it has no exceptional value.

Professor Burton's book is too well known to need extended notice. The fact that this is the third French edition proves that the book is as popular in France as it has been in England and this country. An appendix contains M. Balagny's method of development with hydroquinone.

The International Annual. Through the courtesy of the publishers, Messrs. E. & H. T. Anthony, New York, we have been favored with an early copy of the second volume of their "Annual," which achieved such a signal success last year. The reputation then established is well maintained by the present volume. One hundred and eighty articles, on almost every branch of photography, fill 425 pages of closely printed matter, and make a book which will prove helpful to every worker. We notice many articles on the hydroquinone developer and one by Dr. Janeway, in which he maintains that "quinol" fails, in his hands, to fulfil the claims made for it by its advocates. In our next issue we shall give a more extended review of the leading articles in the "Annual."

List of Dark Rooms Open to the Use of Amateurs.

HOTEL CORONADO—*San Diego, California.* Said to be the finest hotel in California. The dark room was constructed under the special supervision of Mr. A. S. Murray, formerly the President of the Pittsburgh Society of Amateur Photographers, and is lighted by electricity, provided with spacious lockers, and fitted up with electric annunciators from the hotel office.

THE RAYMOND—*East Pasadena, California.*

SAN MARCO—*Santa Barbara, California.*

DEL MONTE—*Monterey, California.*

SPENCER HOUSE—*Niagara Falls, New York.*

SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*

HIGH FALLS HOTEL—*Dingman's Ferry, New York.*

FORT WILLIAM HENRY HOTEL—*Lake George, New York.*

PROFILE HOUSE—*White Mountains, New Hampshire.*

THE WESTPORT INN—*Westport, New York.* Has a dark room with running water.

[We shall be obliged if our friends will send us the names of other hotels or houses that have special dark rooms for the use of amateurs.]

American Photographic Societies.

Agassiz Association, Manhattan Chapter, New York (Photographic Section); Edward B. Miller, Secretary; 103 Lexington Avenue; third Friday.

Albany Camera Club; M. H. Rochester, Secretary; 20 North Pearl Street; first Friday.

American Institute, New York (Photographical Section); Oscar G. Mason, Secretary; Institute Hall, Clinton Buildings; first Tuesday, except July and August.

Atlanta (Ga.) Camera Club; F. J. Paxton, Secretary; 66½ Whitehall Street; second Monday.

Baltimore (Md.) Amateur Photographic Association; Harry D. Williar, Secretary, 106 North Charles Street; third Friday.

Boston (Mass.) Camera Club; 50 Bromfield Street; Edward F. Wilder, Secretary, 47 Tremont Street; first Monday; entertainment meetings, third Monday.

Brooklyn (N. Y.) Academy of Photography; Hoagland Laboratory, corner Henry and Pacific Streets; Willis Dodge, Secretary, 346 Schermerhorn Street; second Tuesday.

Brooklyn (N. Y.) Society of Amateur Photographers; George R. Sheldon, Jr., Secretary, 57 Clark Street.

Brooklyn (N. Y.) Photographic Association; Arion Hall, Wall Street; Charles M. Heid, Secretary, 412 Wyckoff Street; first and third Wednesdays.

Brooklyn Academy of Science (Photographic Section); J. W. Holbrook, Jr., Secretary, 462 Hart Street, Brooklyn, N. Y.

Brooklyn Institute (Photographic Department); Anna L. Meeker, Secretary; Brooklyn Institute, Washington Street.

Brooklyn Camera Club; 442 Fulton Street; H. C. Mettler, Secretary; first Thursday.

Buffalo (N. Y.) Camera Club; Buffalo Library Building; Thomas Carey Welch, Secretary, 33 Law Exchange Building; regular meeting, first week; lantern slide, third week.

Columbia College (N. Y.) Amateur Photographic Society; H. R. Taylor, Secretary, School of Arts, Columbia College; twice a month during college term.

Columbian College Camera Club; Charles P. Spooner, Secretary; Columbian College, Washington, D. C.; every Wednesday afternoon.

Case School Camera Club (Cleveland, Ohio); Milton B. Punnett, Secretary; Case School of Applied Science.

Columbus (Ohio) Camera Club; room 40, Pioneer Block; Frank H. Howe, Secretary, King Building; third Thursday.

Chicago (Ill.) Photographic Society; Art Institute; C. Gentile, Secretary, 134 Van Buren Street; first Tuesday.

Chicago Lantern Slide Club; Art Institute; W. A. Morse, Secretary, 185 Wabash Avenue; third Tuesday.

Cambridge Camera Club (Cambridgeport, Mass.); 23 William Street; H. Sumner Yates, Secretary; first Tuesday.

Cincinnati Camera Club (Photographic Section of Society of Natural History); Natural History Society Rooms, 108 Broadway; Emery H. Barton, Secretary, 171 Race Street; first and third Mondays.

Cornell Camera Club (Ithaca, N. Y.); Physical Lecture Room, Campus; A. Vickers, Secretary; every two weeks; every other meeting a lantern slide exhibit.

Cleveland (Ohio) Camera Club; 5 Euclid Avenue; Robert Dayton, M.D., Secretary; first and third Tuesdays.

Cranford (N. J.) Camera Club; William Chamberlain, Secretary; Club Rooms; every other Monday.

Grand Rapids (Mich.) Photographic Club; 15 Fountain Street; J. B. Barlow, Secretary; first and third Mondays.

Hartford (Conn.) Camera Club; room 61, Ætna Life Insurance Co. Building; Elmer M. White, Secretary, P. O. Box 708; second Monday.

Hoboken (N. J.) Camera Club; F. A. Huench, Secretary, 76 Bloomfield Street.

Indianapolis (Ind.) Camera Club; 33 South Meridian Street; Carl H. Lieber, Secretary; first Tuesday.

Lowell (Mass.) Camera Club; Secretary, G. A. Nelson, 81 Appleton Street; every third Tuesday, November to March inclusive.

Lynn (Mass.) Camera Club; 347 Union Street; J. W. Gibboney, Secretary; first Tuesday.

Louisville (Ky.) Camera Club; Polytechnic Building; R. L. Stevens, Treasurer; second and fourth Tuesdays.

Minneapolis (Minn.) Camera Club; 20 Fourth Street, South; C. A. Hoffman, Secretary, 22 Fourth Street, South; two Tuesdays each month.

Milbury (Mass.) Camera Club; rooms of Milbury National History Society; Miss E. R. Benson, Secretary; third Monday.

Montreal (Can.) Amateur Photographic Club; 2204 St. Catherine Street: J. W. Davis, Secretary, Alois Department, Grand Trunk Railway; first Monday.

New Brunswick (N. J.) Camerads; Rutgers College; Dr. Harry Tredwell, Secretary: meetings on call.

Newark (N. J.) Camera Club; 833 Broad Street; C. G. Hine, Secretary; second Monday.

New York Society of Amateur Photographers; 122 West Thirty-Sixth Street; Harry T. Duffield, Secretary; second Tuesday, except June, July, and August.

New York (City) Camera Club; 314 Fifth Avenue; J. H. Wainwright, Secretary; second Wednesday in January, April, July, and October.

New Orleans (La.) Camera Club; Tulane University; Charles H. Fenner, Secretary; third Wednesday.

Oregon Camera Club (Portland, Oregon); Club Rooms, Third and Morrison Streets: Edward Norton, Secretary; third Friday.

Old Colony Camera Club (Rockland, Mass.); Club Rooms, Liberty Street; Burton O. Estes, Secretary; Wednesdays.

Providence (R. I.) Camera Club; Swarts' Block, 81 Weybosset Street; J. E. Davison, Secretary; first Saturday, and Tuesday after third Saturday.

Philadelphia (Pa.) Photographic Society; 1305 Arch Street; Robert S. Redfield, Secretary, 1601 Callowhill Street; stated meetings, first Wednesday; conversational, third Monday.

Philadelphia Amateur Photographic Club; 907 Filbert Street; Alfred Thompson, Secretary, 1311 Butler Street; third Monday; annual meeting, third Monday in December.

Pacific Coast Amateur Photographic Association; 605 Mercantile Street; J. H. Johnson, Secretary, 414 Buchanan Street, San Francisco, Cal.; first Thursday after first Monday.

Pittsburg (Pa.) Amateur Photographers' Society; 59 Fourth Street; F. R. C. Perrin, Secretary, Crafton, Allegheny County, Pa.; second Monday.

Plainfield (N. J.) Camera Club; Club Rooms, 12 Park Avenue; G. Harry Squires, Secretary, 108 Broadway; first Monday.

Postal Photographic Club; Dr. J. Max Mueller, Secretary, West Chester, Pa.

Quebec (Canada) Camera Club; Captain Imlah's Quarters, Citadel; Ernest F. Würtele, Secretary, 93 St. Peter Street.

Rochester (N. Y.) Camera Club; Kirley Block, East Main Street; Peter Maudsley, Secretary, 42 Smith Avenue; every alternate Thursday.

Selma (Ala.) Y. M. C. A. Camera Club; Y. M. C. A. Building, Broad Street; S. Orlando Trippe, Secretary; first Thursday.

Syracuse (N. Y.) Camera Club; Club Rooms, 72 South Salina Street; Wallace Dickson, Secretary, P. O. Box 129; every Friday.

Springfield (Mass.) Camera Club; corner Main and Sanford Streets; John Leshun, Secretary; third Wednesday.

Stevens Photographic Society (Hoboken, N. J.); Stevens Institute; E. W. Franzar, Secretary; first Wednesday.

Saint Louis (Mo.) Camera Club; St. Louis University; W. M. Butler, Secretary, 2636 Osage Street; first and third Tuesdays.

Texas State Photographers' Association; C. F. Cooke, Secretary.

Toronto (Can.) Amateur Photographers' Association; College of Physicians and Surgeons, Bay Street; F. D. Manchee, Secretary; first Monday.

Watertown (N. Y.) Camera Club; High School; George I. Woolley, Secretary; first Monday.

Washington (D. C.) Camera Club; J. Albert Cole, Secretary, office of Supervising Architect, United States Treasury Department.

Waterbury (Conn.) Photographers' Society; room 18, Baldwin's Block, 63 Bank Street: William L. White, Secretary, 100 Cooke Street; Friday evenings.

Worcester (Mass.) Lantern Slide Club; 4 Elm Street; Dr. George E. Francis, Secretary; every second Tuesday.

Worcester (Mass.) Camera Club; Natural History Society Rooms, Foster Street; Paul B. Morgan, Secretary; second Tuesdays.

Yonkers (N. Y.) Amateur Photographers' Club; Dey's Building, corner Warburton and Wells Avenues; Robert M. Reevs, Secretary, Box 720, Yonkers. N. Y.; first Friday.

[Secretaries will confer a favor by reporting any errors or omissions in the above list.]

PUBLISHER'S DEPARTMENT.

In this department the publisher of the AMERICAN AMATEUR PHOTOGRAPHER proposes to give from month to month, for the benefit of his readers, the results of personal experimenting with such new pieces of apparatus as may be sent him, or as may be purchased in open market. Manufacturers and dealers are requested to send to this office such apparatus as they may wish to have described, with the understanding that each article will receive careful study and be described solely on its merits.

While the excellences of every article will be pointed out, its weak points, if it has any, will not be concealed. The readers of the AMATEUR PHOTOGRAPHER may rely on having an unbiased opinion, based on careful experiment, of every article mentioned. It is hoped that this novel feature in photographic journalism will be helpful to prospective purchasers who are often confused by the multiplicity of claimants for their patronage. This month we have several things to describe.

From H. G. Rampsberger & Co., whose announcement will be found in its proper place, we have received two decided novelties, the Aladdin Dark Room Lamp and the Safety Flash Igniter, both of which possess several novel features, and both of which we have thoroughly tested.

The Aladdin is in principle a Bunsen gas burner, carrying an argand burner provided with an amber chimney, a by no means safe color for plates of any exalted sensitiveness. The novel feature of the lamp consists in the use of a circular wick impregnated presumably with a sodium salt after the manner of the Gädicke monochromatic lamp recently introduced in Germany. When this wick is slipped down over the tube, the blue flame of the Bunsen is instantly converted into a bright yellow, fully six times as powerful as the light of a ruby lamp, with a power of chemical action several times greater. The light is exceedingly pleasant to the eyes, the lamp is compact and well made, and the only question is, Is it safe for quick plates? We exposed a Standard plate, sensitometer number 30, to the light at a distance of one foot, drawing the slide from the holder a few inches at a time, and giving thirty seconds to each exposure. Of the four exposures thus made, the first was two minutes, the second ninety seconds, the third sixty seconds, and the fourth thirty seconds. The plate was developed for five minutes in a normal developer, and after fixing showed a decided darkening of the film in the first two sections, a slight darkening in the third, and clear glass in the fourth, which had been given an exposure of thirty seconds. At one foot distance the light is unsafe for rapid plates. A second plate was exposed in the same way, at a distance of three feet, with decidedly better results, only the first section with an exposure of two minutes, showing any indication of fog, and that almost imperceptible.

Our next experiment was to make a transparancy from a negative of medium density. An exposure of three minutes at eighteen inches from the lamp, followed by a five minutes' development, in a normal pyro-developer, gave no trace of an image, while one of six minutes gave only the feeblest kind of a ghost. Several plates were then exposed in the camera and developed within two feet of the lamp, shielding the tray somewhat from the direct rays, and the results were perfectly satisfactory.

As the result of our experiments we conclude that the new lamp is perfectly safe even for plates of exalted sensitiveness, if proper precautions are taken not to allow the direct rays

to strike the plate until the details are started. The volume of light given off is wonderful, and development is made a pleasure.

The Safety Flash Igniter differs from all others with which we are acquainted in that no flame is used to produce the flash. A stick of prepared carbon is carried in a metal cylinder which slides easily in a hollow upright, connected at its base with a metal tube to which is attached a piece of rubber piping terminating in a rubber ball. The top of the upright carries a round metal flash pan with a small circular opening in its center. When ready to make an exposure the carbon is lighted and allowed to get well aglow. A tuft of gun cotton is loosely thrust into the opening and spread out on the pan. The magnesium powder is sprinkled over the cotton, being ignited by a pressure on the bulb, which brings the glowing carbon in contact with the cotton, the flash instantly follows, and the whole of the powder is consumed. A larger quantity of powder can be ignited in this lamp than in many of those now in the market, and the absence of flame adds to its safety. As sent out by the manufacturers the lamp is not provided with any means of attaching a reflector or screen. This defect is easily remedied by having suitable metal strips soldered to the side of the flash pan.

We have made a number of excellent interiors with the Safety, burning from ten to forty grains of powder, and, with the exception noted, we regard it as a safe and efficient means of igniting magnesium powder.

Those who are in love with a high polish on their prints, and who do not find that imparted by the burnisher quite up to the mark, should try Richardson's Glacé Lubricator. A print treated with this and then burnished, will show a polish almost equal to the Simon-pure glacé finish of Adam Solomon.



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BY ROBERT S. REDFIELD

SEESAW.

PHILADELPHIA.

THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., AUGUST, 1889. No. 2.

Our Illustration.

IT is with no little pleasure that we present our readers with a cut of Mr. Redfield's Exhibition picture "Seesaw." As an example of thoughtful arrangement and simple but effective composition, the picture will repay careful study. The accessories of basket, rake, plow, and barrel are familiar to all who recall the pleasant days at Grandsir's Farm, when they formed the stock in trade of many a childish comedy, and perchance, now and then, of tragedy as well; when the childish playmates fell out and parted in anger. There is a pathetic side to Mr. Redfield's charming study, which will give it added value to many of our readers. We congratulate ourselves and our readers on being able to present so perfect an example of thoughtful photography, and we are grateful for the kindly spirit of helpfulness which prompted Mr. Redfield to allow us to reproduce his delightful picture. The block was made by Crosscup & West of Philadelphia.

EDITORIAL.

A Rapid Wide-Angle Group-Lens.

EVERY portrait photographer is aware that one of the first desiderata in the production of groups in the studio is ample working-room, and especially liberal distance at which to place the lens. Sometimes it happens that, on account of limited space in the studio, the group needs to be arranged so far in the rear that effective or artistic illumination cannot be secured, the artist keenly feeling the inadequacy of his lens. Instances are not infrequent when the photographer is obliged to resort to a regular wide-angle lens, such as is usually employed in photographing interiors or buildings at close range, but in all cases the result does not prove satisfactory, owing to the necessarily long exposure. Such groups offend also because of the excessive sharpness and exaggerated perspective which characterize

most wide-angle lenses, and the true portrait quality is conspicuously absent. The necessity, then, of a group lens, which shall work with reasonable speed and yield technical results of a high order, and be available in short studios, is recognized in every country where photography is practiced. With commendable energy Messrs. Voigtländer & Son have come to the rescue and supplied this long-felt want, the first lenses of this new and really wonderful construction having reached this country only a few weeks ago. Although we have had no personal experience with the "Rapid Wide-Angle Euryscope," as the new instrument is called, we are able to present a few interesting facts. It is constructed in five sizes, resembling in appearance the well-known "Extra Rapid Euryscope," by the Voigtländers, possesses a slightly longer focus, but covers *a plate of double the area, and works with about the same rapidity.* This seems incredible, when we consider the laws of photographic optics and their limitations, but as the Voigtländers have always led as constructive opticians, and supplied the photographic profession with matchless objectives, we naturally look to them for every improvement in photographic lenses. They have been materially aided, however, in the construction of their latest achievement, by the skill of Mr. Abbe and Mr. Schott, of Jena, Germany, who have produced a singularly powerful optical glass, which differs most radically from the article heretofore employed.

The "Rapid Wide-Angle Euryscope" has produced a sensation in England, where a spacious and well-lighted studio is a rarity. We hope to experiment with the new lens, and shall report the results, which cannot but prove interesting.

The lens seems to be eminently adapted to home portraiture in small rooms, and the name of Voigtländer is sufficient guarantee of careful and painstaking workmanship.

Both the lenses and examples of work done with them will be on exhibition at the forthcoming Boston Convention, where many of our readers will no doubt see them in advance of the report which we hope to make next month.

Holiday Number—Prize Tour Competition.

IT is proposed to make the December number of the AMERICAN AMATEUR PHOTOGRAPHER an illustrated Holiday issue. The subject selected for illustration is "Vacation Trips with the Camera," and the following prizes are offered for the three best series of views accompanied by descriptive MSS.:

FIRST PRIZE—A Kodak Camera.
SECOND PRIZE—A Hawkeye Camera.
THIRD PRIZE—Stirn's Concealed Camera.

Conditions of competition: Competitors must be paid-up subscribers to the AMERICAN AMATEUR PHOTOGRAPHER. Not more than ten views can be

entered by any one competitor. The views must be accompanied by descriptive MSS., written on one side of the paper only, and containing not more than 1,500 words. Successful competitors are to place their negatives at the disposal of the publishers of this journal for a sufficient length of time to allow the plates to be made. All views and MSS. to become the exclusive property of the publishers of the AMERICAN AMATEUR PHOTOGRAPHER; but such as are not suitable for use in future numbers will be returned, if desired. All views and MSS. must be received at this office on or before November 1, 1889. The awards will be made on the combined merits of the prints and MSS. by three judges selected by the editors.

We hope that amateurs generally will respond to this invitation, in order that the Holiday number may represent the best work of American amateurs.

As an encouragement to younger amateurs we offer the following special prizes for the three best series of six landscape views without MSS. Competitors for these Junior Prizes must not be over sixteen years of age, and must be subscribers to the AMERICAN AMATEUR PHOTOGRAPHER.

FIRST PRIZE—H. P. Robinson's Works on Photography; 5 volumes.

SECOND PRIZE—W. H. Burbank's Printing Methods and The Photographic Negative, and E. J. Wall's Dictionary of Photography.

THIRD PRIZE—The Photographic Instructor, and Wall's Dictionary of Photography.

Some Experiments with Camphor.

THE introduction of flexible films and the possibly important part which celluloid may play in the photography of the future has raised the question of the possible effects of camphor on the sensitive film. Celluloid contains camphor, and some have thought that the dark spots sometimes noticed in flexible films were due to the camphor contained in the celluloid support. We have recently finished a series of experiments begun some weeks ago with a view to determine what, if any, effects camphor exerts on a sensitive emulsion. A number of plates were subjected to three tests. Two were placed in the bottom of an empty plate box and covered with powdered camphor. At the end of one week one of the plates was removed from the box and exposed under a negative. Development showed the plate to have been over-exposed, but there were no signs of anything abnormal; none of the dark spots complained of appeared, and we concluded that a week's contact with camphor had no injurious effect on a dry plate. At the end of two weeks the second plate was removed from its box and treated like the first, giving less exposure; the result was a good transparency with no indications of spots or other imperfections which could be ascribed to the presence of camphor. Dry camphor we conclude, therefore, has no injurious effect on a coated plate. Possibly camphor in solution might. A

plate was therefore immersed for five minutes in an alcoholic solution of the gum and then developed; still no signs of fog. In order to test the matter still further we allowed a plate to remain in the solution for three days; again no spots. Our final test was to expose a plate to camphor fumes for two hours, with the same negative results. These experiments we take to be conclusive proof that camphor has no injurious effects upon a coated plate, and that therefore the cause of the spots complained of must be sought in some other direction, possibly in the temperature of the emulsion when the films were coated. Heat is a powerful factor in chemical processes, and it is possible, but hardly probable we think, that a warm emulsion might be injured by contact with a substance containing camphor. We have had no opportunity to test this, and we leave it for some of our experiment-loving readers.

Photographic Notes by a Photographer.

By MILAN P. WARNER.

WITH the advent of dry plates, photography came to stay—with the masses. In spite of photographic trusts and monopolists, the camera is making its way to every part of the globe. History will now be accurately illustrated, and items of vast importance delineated with the unerring eye of the camera.

Plates.—The *ultima thule* in dry plates will be a flexible glass plate about one-sixteenth of an inch thick, rigid enough to hold a plane position in the plate holder, yet with sufficient elasticity to bend without breaking. Thick glass will not answer, because of its weight, bulk, and brittleness.

Plate Holders.—A single holder is best for thin plates; the best construction is a sliding door close to a ledge or shoulder around the frame. The exposing slide is never withdrawn before loading. In the case of flexible films, the door, that is, the back slide, is withdrawn, the holder laid on its face on a table, a loading pad is placed on the inner surface of the exposing slide, of such thickness that it is flush with the ledge of the frame of the plate holder. The film is laid on this, face down, and the door is slid over back of the film, in close contact with it, holding it firmly by its four sides against the ledge. Lastly, the exposing slide is pulled out and the pad drops out. The four corners of the pad are clipped in order not to interfere with the kit-lugs.

Printing Frames.—It seems strange that more care is not taken to supply the demand for good printing frames. A thick, continuous pad is better than one or two loose ones. But a large cavity in the center of each half of the back, underneath the rivet, so that contact and pressure are not secured,

is an evil. A piece of wood should be glued in here, and planed off flush with the surrounding surface before the pad is glued on, no matter if it does cost a few cents more. The flat springs also should be strong and elastic, not weak and dead. Wire rests that are only hooked into the frame about $\frac{1}{8}$ of an inch, so as to come out on the least provocation, are a nuisance—so also are tallies.

Photo-Mechanical Printing.—While plates with a fair degree of sharpness may be made by printing from the back of a flexible film, it is probable that the sharpest work will be done with stripped gelatine films. If some light metal, such as aluminum, could be used as a backing for the film during exposure in the camera; that is, if a thin metal plate, which could be coated on the back with parafine, if necessary, to withstand the action of the alkaline developer, could be coated with emulsion, risk of breakage would be avoided, and the film would not stick to the support when stripping was attempted. The slow, expensive, and complicated process of printing photos with nitrate of silver must give way to the printer's ink process in time to come. Portraits and views will be largely and cheaply duplicated in permanent ink, without the soaking and stretching of paper in chemicals and water as now practiced.

Stripping Plates.—In stripping negative films, a second sheet of gelatine or stripping skin must be employed, or liquid gelatine poured on and dried at a proper temperature, in order to reinforce the original film to enable it to withstand the strain put upon it.

Focusing Cloth.—This should be four feet square or even larger, that all light may be easily and certainly excluded when focusing and exposing. The back of the best made camera is liable to warp a little and so leak light.

Loops on Plate Holders.—All plate holders should have loops of different colored tape slipped over them, both to keep the slides in and to show the degree of sensitiveness of the plate.

Saturated Solutions.—The different alkalies are best kept in saturated solutions in labeled bottles. The developer may thus be easily modified to suit different formulæ or to produce any desired effects. The pyro may be used dry, or it may be dissolved in acidulated water (citric or sulphuric acid) in the proportion of one to twelve, and measured out as required. Such a solution of pyro will retain its good qualities for months, provided pure water is used. No chemical solution will keep long if impure water is used.



Chapters for Beginners.

I.—APPARATUS.

AS the AMERICAN AMATEUR PHOTOGRAPHER is intended to be helpful to young beginners in photography, as well as to more advanced amateurs, it seems proper that space should be found in its columns for a series of chapters written especially for beginners.

In photography, as in every other craft, the workman must have tools adapted to his work. Leaving aside, for the present, the chemicals and appliances necessary in the after treatment of exposed plates, I propose to devote this chapter to the apparatus actually needed to obtain a developable image on a sensitive plate. The list will include a camera, lenses, tripod, plate holders, focusing cloth, dry plates, and a ruby lamp.

The camera should be light, but strongly made, and provided with rubber or leather bellows, a sliding front, and a swing back. It need not be expensive, but it must be thoroughly reliable, and absolutely light-tight when the plate holder is in position and the lens capped.

LENSES.—For general landscape work I have found nothing superior to the single view lens, which, in the desirable qualities of speed, depth of focus, and flatness of field, is surpassed by few of the more expensive double combinations. For architectural work, where absolute straightness of lines is required, a double combination lens is essential, and a wide-angle lens will sometimes be found necessary, but it should be used with caution, as it distorts the perspective. The beginner will do very well with a good single-view lens.

THE TRIPOD.—I would not advise the purchase of one of those light, many-jointed affairs except for their portability. The tripod should be strong enough to be perfectly rigid when set up, and it should have a broad top for the camera to rest on.

PLATE HOLDERS.—These may be of wood, metal, or paper, single or double, as desired. They must be perfectly light-tight, and fit the camera back accurately and tightly.

FOCUSING CLOTH.—This should be of some dark material, either cloth or rubber, and large enough to cover the camera completely, lapping well under the bed in order to exclude all outside light, both when focusing and when the slide is drawn from the holder.

The beginner, having provided himself with the foregoing apparatus of a size and quality of workmanship to suit his taste and purse, must first learn the use of it, and before he attempts to make a picture I would advise him to make a few preliminary trials of his instrument in order that he may acquire skill in setting it up, focusing, etc.

First, fasten the camera firmly to the tripod; then adjust the stand so that one leg is under the lens, and the others at equal distances from the first.

The camera should be at least approximately level in the case of landscapes, rigidly so when architectural subjects are in question. The height of the camera from the ground will largely depend on the height of the operator, although we are in the habit of working with the camera rather low down, as this position seems to give better effect to the foreground. Now comes focusing, usually a matter of no little difficulty to the beginner, owing to the reversed position of the image. For the first attempt it is best to select some prominent, well-defined object, a house for instance, not too far removed from the camera. The head is covered with the focusing cloth, and while the gaze is fastened on the ground glass, looking at it, not through it, with the head not too near, the camera is drawn in or out until the lines of the building are sharply defined upon the screen. If the largest stop or diaphragm is used the sides will probably be more or less blurred, owing to lack of what is called marginal definition in the lens. This fault may be corrected by inserting a smaller stop, but the larger field of definition is obtained at the loss of illumination.

The beginner is reminded that the diaphragms have a twofold use, one to increase the area of definition, and the other to extend the depth of focus, that near and distant objects may be sharply defined. When the largest stop does not give the required extent of sharpness, one must be selected which will do so, always using the largest stop that will give the desired effect. In landscape work it is a good rule to focus sharp on the middle distance first, using a smaller stop and the swing back, if necessary, to secure equal definition.

These operations should be repeated until the beginner is able to focus quickly and accurately.

AN OLD HAND.

(To be continued.)

Notes on the Philadelphia Exhibition.

WORK OF THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

AS was naturally to be expected, the work of the members of the Philadelphia Society greatly exceeded in amount and quality that of any of the other associations, and certainly was evidence of the fact that many exerted themselves to show what old Philadelphia was able to do. The Society is to be congratulated in having had such a competent committee of arrangements to supervise and manage the exhibition—a committee who knew the need of properly hanging photographs that they might be easily examined.

Taking the exhibits in the order of the catalogue we notice in the

single bromide, "On the Manasquan," by Marriott C. Morris, a very good example in that line.

Dr. J. J. Kirkbride had one frame of five views in Maine that were up to his usual standard of excellence. Robert E. Pettit, of Altoona, Pa., sent two bromide enlargements of fair merit.

John P. Anshutz contributed four frames of views near Newport, R. I.; one, entitled "Fire-Place in Old Stone Mill, Newport," was especially good.

Nine frames illustrative mostly of camp life, including bromide enlargements, platinum and albumen prints, by W. A. Cheyney, of Cheyney, Pa., were well done and exhibited excellent taste.

E. T. Bradway, Woodbury, N. J., had one frame of a very good "Church Interior."

Two frames by J. Mitchell Elliot, one including five $6\frac{1}{2} \times 8\frac{1}{2}$ views of Florida foliage, were exceedingly fine. It was some of the best work of Southern foliage that we have seen.

David Pepper sent three frames, in one of which were six good views on Mount Desert, Maine. No. 94, a bromide enlargement from a 4 x 5 negative of a bicycle in motion, was very clear and distinct.

David Pepper, Jr., had one frame holding four good views of the surf on Great Head, Mount Desert, Maine.

Nine frames by Dr. E. C. Hine of views in the Adirondacks and mountain scenery were noteworthy for the excellent selection of subject and the variety and depth of feeling displayed.

Of Mr. C. R. Pancoast's three frames, that called "Sunset at Twin Lakes" was the most picturesque and a remarkably fine landscape. His others, entitled "Rustics" and "Home Revisited," were fully up to his excellence as an experienced amateur photographer.

Theodore N. Ely, of Altoona, Pa., sent eight frames, some being enlargements, representing views in Italy and Virginia. Those of special interest were in frame 140, called "Family Group, Virginia," and "Jimmy," and were quite original in their conception and grouping. Nearly all were made with a 4 x 5 Detective camera.

Joseph M. Wilson had a splendid collection of 5 x 8 views distributed among three frames. They included beautiful photographs of Lower Ausable Pond in the Adirondacks, pictures at Mount Desert, excellent architectural views, and many in other portions of the vicinity of the Ausable River. One that was specially attractive, full of delicate detail and very soft and delicate, was called "Ferns on Old Portage Road," at Cresson, Pa.

The most attractive and original of the seven photographs in two frames by Winfield S. Clow was a flash-light figure study entitled "Evening Study," showing a boy making a sketch on a blackboard. It was soft and the pose was very natural.

Frank H. Rosengarten had a very pleasing and sharp 11 x 14 bromide enlargement from a 4½ x 5½ plate made instantaneously, entitled "Launch of the Dynamiter Vesuvius." Another pretty view was "Autumn on the Wissahickon."

One of the prize-winners, George B. Wood, was as usual fortunate in sending a large variety of figure subjects, which were quite original. His most striking pictures appeared to us to be "Open Air Concert," "Darby Creek" (a beautiful landscape showing pretty effects of sunlight and shade), and "On the Way to School," a capital study of children.

Henry Harrison Suplee, of Germantown, sent a number of flash-light studies. Those in 104 were the best, but seemed to us rather hard, as if too much pyro had been added to the developer. Mr. Suplee took a diploma at the 1888 Boston exhibition for the best flash-light picture.

Quite a number of views around Haverford College, Pa., sent by Harry Paul Baily, were very good. Those that were especially attractive were "Maple Avenue," and an excellent road view called "View at Haverford College."

Another annual prize-winner, Robert S. Redfield, also the energetic secretary of the Philadelphia Society, contributed eight frames 6½ x 8½ of very artistic landscapes showing some of the finest Connecticut scenery. His views on orthochromatic plates, with which a colored screen was also employed, certainly displayed their value in securing fine distance and clouds. Such pictures as "Among the Berkshire Hills" and "Near Salisbury, Conn.," were very fine. A view entitled "Reaping" was excellently composed. We illustrate in this number another very interesting picture of his at the exhibition, entitled "Seesaw," made with a Ross Rapid Symmetrical lens on a Cramer plate. The artistic grouping and fine background make it a most pleasing picture, while it is technically perfect.

The interiors of a church at Boxborough, by J. V. Merrick, were fairly well done.

Six frames by William D. H. Wilson held five bromide enlargements of figure studies that were quite meritorious. They appeared to us too green in tone.

Edward B. Harden contributed three coal mine views made by the use of the flash light, that were very good. James Dillon also sent a very large quota of flash-light figure groups (we counted thirty-seven in one frame). "Weighing the Baby" was very well caught, but his best picture, which was also amusing in its make-up, called "Where are those women?" represented three men seated alongside of each other, the two on the end holding a single baby, and the center one holding two babies, one on each knee. Three of the babies were in good humor, but one at the end was crying with

a vengeance. The effect was extremely comical, and the flash was so rapid that every individual and feature was brought out very distinctly.

The work of Alfred Clements displayed in four frames was very beautiful. He had a few views in England and Normandy that were very attractive; one, an "English Roadway," was quite artistic. But we especially admired the fine light and shade effect in his "In Fairmount Park, Philadelphia," and the beautiful clearness and crispness of "Near Germantown, Philadelphia"; also the remarkable delicate cloud effects in "Twilight on Suffolk Broads, England." Mr. Clements is a very careful worker, and selects artistic views with an ease that is apparently natural. We are always glad to look at his work, and it well repays studying over.

Dr. Charles L. Mitchell, so well known for his interesting investigations concerning improved developers, made a splendid exhibit of 8 x 10 work, especially of views in the White Mountains. His cascade pictures were very attractive. "On the Profile Road, Franconia Notch, New Hampshire," was full of most exquisite detail in the trees along the road, and had a peculiar softness that made it particularly pleasing to look at. Another view, "Profile Lake and the Profile at Franconia," was very artistic, having beautiful reflections. His "Tree Study, Fairmount Park, Philadelphia," on a 11 x 14 plate was remarkably clear, abounding in fine detail, showing also a fine distance effect. "The Heart of the Forest" showed excellent effect of light and shade in dense woods. Another, "Down a Country Lane," struck us as being especially fine, not alone because of its beautiful distance, but also on account of its softness, good composition, and richness in detail. Such superior technical excellence is rarely seen, and it is no wonder that Dr. Mitchell secured a diploma.

F. G. Cauffman sent four frames of average quality, of landscapes along the Wissahickon. The original composition and artistic feeling shown in many of John Bartlett's *genre* and figure pictures stood out very clearly in the fine specimens he sent, and fully sustained the reputation he has gained for himself as a careful worker. We have only to allude to such compositions as "Learning to Read," "Cronies," "Little Red Riding-Hood," and "A Country Kitchen" to convey to the reader an idea of the variety he can produce. His picture of a vase of "Spring Flowers" was admirably done. As was to be expected, he received a diploma for general excellence.

Frederick Gutekunst contributed four frames, in one of which (a very large one) was an assortment of excellent portraits. For this he received a diploma. His other frames had beautiful specimens of phototype work.

John Carbutt sent one frame of sixteen views around Dingman's Ferry, Pike County, Pa., all made on his orthochromatic plates. These were very finely done, and we particularly liked "Cascade, Indian Ladder Ravine, Pike County"; also the view in the same locality called "Coliseum Cascade." These were well located on the plate and of superior artistic merit.

Of Henry T. Coates' four views in one frame, those called "Washington's Headquarters, Valley Forge," appeared to be the most interesting.

Dr. William Thompson sent one frame including views in Scotland and some equestrian groups that displayed excellent technical ability.

William H. Rau made quite an extensive exhibit, embracing a number of flash-light interiors of fine quality, splendid bromide enlargements of animals, and a specially fine artistic enlargement, entitled "A Misty Morning on New York Bay," which secured for him the special diploma for enlargements. Another view that possessed fine qualities, both artistically and technically, was called "Valley Green, on the Wissahickon." Mr. Rau probably displayed the best professional work by home talent in the exhibition.

A number of views near Stockbridge, Mass., in one frame, by John Struthers, were of fair quality. Morris Earle sent twelve frames, including views near Worcester, Mass., and portraits and groups. Some of them were excellently made and well lighted. Samuel Sartain contributed three frames containing several views. A 5 x 8, "Near Barkersville, Md., on the Potomac," was very pretty. Another, "Delaware Water Gap," was quite artistically arranged and exhibited good technical quality.

Thomas H. Lüders sent six frames of 4 x 5 views taken near Nazareth, Pa. One of the best was called "Below Lund Spring." All were bromide prints.

Another recipient of a diploma for general excellence was R. T. Hazzard, who had thirteen $6\frac{1}{2} \times 8\frac{1}{2}$ pictures in one frame, and four others separately framed. His figure and animal subjects were admirable, particularly 382, called "The Gossips." In this, the expression of the faces and the natural grouping of the figures was beautifully caught. We thought, however, the background was not in keeping with the main feature of the picture. Another, entitled "Learning to Talk," representing two dogs endeavoring to express themselves, was very original, well lighted, and technically perfect. It was, of course, taken instantaneously. An interior of "Ladies' Parlor, Hotel Stratford," was a splendid subject, but from the print looked as if the negative was over-exposed or thin, or the print had been over-printed. Mr. Hazzard's specialty appeared to be in his figure and animal compositions, though in "Havana Glen in Winter" we observed a beautiful crispness and detail in the snow that was very attractive.

In Thomas Wakeman Lane's three frames was one picture of special and historical interest. It was the "House in which President Buchanan was born, at Mercersburg, Franklin County, Pa." His work was technically very good.

Three marine studies, by Frank H. Rosengarten, were excellently done. Edmund Stirling sent six frames, containing some very artistic photographs, illustrating scenery along the Brandywine and Wissahickon. His 10 x 12

enlargement on bromide paper, entitled "The Creek Road," was particularly attractive, beautifully finished, and technically very fine.

"Breakers and Surf off Beaver Tail, Conanicut Island, R. I.," a fine, instantaneous surf photograph, appeared to us to be the best of the four views sent by Dr. George McClellan.

The twenty-seven frames, mostly of flash-light photographs of figure subjects, by E. M. Pine, of the *Philadelphia Press,* were quite interesting, and a number were very effective. One of his best was a bromide enlargement from a $4\frac{1}{4} \times 6\frac{1}{2}$ negative, called "Cotton and Wool," representing a darky child with a heavy growth of curly black hair on its head, seated in the midst of a cotton field. The title was very happily selected.

Frank Bement, who operated the lanterns so successfully during the lantern exhibitions, contributed one frame of several excellently executed photographs of machinery.

No. 461, representing nine assorted portraits, mostly of one child, by A. K. P. Trask, was awarded a diploma for general excellence. Mr. Trask's skill in taking children's portraits was well illustrated in his other four frames. The lighting and grouping was exceedingly artistic, and technically the work was all that one could desire.

A diploma of general excellence was also given to Clarance B. Moore, who only exhibited six transparencies of large size. "A Fair Athenian," showing a lady seated in a boat, surrounded by lilies, was exceedingly picturesque, and we presume attracted the attention of the judges.

Anthony W. Robinson had eleven beautiful transparencies; one entitled "Coming up the Delaware," showing a ship under full sail, was very effective. The detail in the vessel was most exquisitely brought out. Other exhibitors of transparencies were John Carbutt, R. T. Hazzard (the latter having some beautiful 11 x 14 enlarged transparencies), and William H. Rau.

We shall on another occasion refer to the lantern slides sent by representatives of the several societies.

In concluding our review of the work of members of the Philadelphia Society, we can speak of it only in terms of praise, since there was nothing shown that did not possess some merit. The society is to be congratulated in having among its members so many experienced and able photographers. In our next we shall review the work of the New York and other societies.

F. C. B.

THE

AMERICAN AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

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W. H. BURBANK, MANAGING EDITOR. F. C. BEACH, ASSOCIATE EDITOR.

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Items of general interest upon photographic subjects will be gladly received

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EDITORIAL COMMENT.

The editors are extremely gratified by the many kindly words of encouragement which they have received both from the press and from their fellow-amateurs. The editorial sanctum has been fairly overwhelmed with letters of congratulation, and nothing but the excessive modesty of the editors prevents them from making this a testimonial number. But they recognize the fact that their readers have a right to expect something better of the AMERICAN AMATEUR PHOTOGRAPHER than praise of its own good qualities, and refrain from publishing the kindly words they have received, believing that "the proof of the pudding is in the eating." They will say, however, that no pains will be spared to make the magazine a worthy representative of all that is best in American amateur photography, and they ask their friends to help them by contributing to the pages of the magazine and by bringing it to the notice of their friends. The larger our subscription list the more and better the feast we can provide for our readers. The more they do for us, the more we shall be able to do for them. Our disposition to be helpful is limited only by our ability.

We note with pleasure that a standard work on photography figures among the prizes offered at the last field day of the Providence Camera Club. This is an example we would gladly see imitated by other clubs. We offer a year's subscription to the AMERICAN AMATEUR PHOTOGRAPHER as a prize to be competed for under similar conditions.

Molybdic Acid as a Printing Agent.—M. Pecard has recently made the interesting discovery that the compound resulting from the solution of molybdic acid in a hot solution of oxalic acid is sensitive to light, and that paper sensitized with a solution of the crystallized compound may be used for printing purposes, giving a blue print, which is washed out by water, but which changes to a permanent black on the application of gentle heat. The

compound has the formula—$C_2 H_2 O_4$, MoO_3, $H_2 O$, and is called oxalo-molybdic acid. To prepare it, molybdic acid is added, nearly to saturation to a hot solution of oxalic acid, and the solution evaporated until it thickens; the product is dissolved in nitric acid, and the liquid evaporated in a desiccator. The fine crystals thus formed are dissolved in water to saturation, and the paper is sensitized by floating or brushing.

Hydroquinone Developer.—We have lately used with success a hydroquinone developer recently recommended by a correspondent of the *British Amateur Photographer*, the formula for which is as follows:

	No. 1.
Hydroquinone,	24 grains.
Sodium sulphite,	96 grains.
Potassium bisulphite,	16 grains.
Citric acid,	16 grains.
Water,	1 ounce.
	No. 2.
Potassium hydrate,	96 grains.
Water,	1 ounce.
	No. 3.
Potassium bromide,	48 grains.
Water,	1 ounce.

For normal exposures, use 150 drops of No. 1, 150 drops of No. 2, added gradually, and 120 drops of No. 3, in four ounces of water. We have found it highly important to use distilled or melted ice-water.

Bottles for Photographic Purposes.—In our experience we have found nothing better in the way of bottles for mixing and holding solutions than the wide-mouthed fruit jar called the Lightning. Its wide mouth makes the introduction of large crystals easy and forms a firm support for a funnel, and it is instantly closed air-tight by an arrangement similar to the beer bottle fastener. The jars come in pint, quart, and half-gallon sizes, and altogether are the best thing for the purpose to be had at a moderate outlay. A supply of them should be found in every well-regulated dark-room.

Photography as a Weather Prophet.—Dr. Zenger of Prague claims to have made the discovery, valuable if true, that approaching atmospheric changes may be detected with the camera twenty-four hours in advance. Photographs of the sun are taken on orthochromatic plates, and the approaching changes are indicated by zone-like rings surrounding the sun's disk. According to Dr. Zenger zones of large diameter and unusual heaviness are infallible indications of the approach of violent storms or magnetic disturbances. We would be pleased to have some of our readers test the truth of this novel theory and give us the results of their experiments for publication.

New Photographic Clubs.—Iowa City, Duluth, Wheeling, and Medford, Mass., have recently organized photographic clubs. At this rate every hamlet will soon have a photographic club. There cannot be less than seventy-five such clubs now in active existence in the United States, and it might not be a bad idea to unite them in some confederate form of organization.

Mr. John E. Dumont has favored us with a characteristic picture of a young lady standing near a stone wall, making a trumpet of her hands as she stands calling to a distant friend. The title of the picture is "Hello," and it well sustains the title. The pose is easy and characteristic, the lighting is excellent, and the background of trees is skillfully used to bring the young lady's head into prominence, and so emphasize the motive of the picture. Mr. Dumont is to be congratulated on this, his latest creation. We shall give a reproduction of the picture in an early issue.

Field Days.—Now that active work in the club rooms is over for the season, Field Days occupy a large part of the time of the club men. From various sources we have received

accounts of many of these pleasant outings, some of which will be found in Society Notes. The demands on our space are so great that we are unable to make room for all the interesting reading we receive, and our friends will pardon us if at times we are unable to do justice to all.

We would be pleased to have our readers send us brief accounts of their experiments with the hydroquinone developer, with their opinion as to its merits. Brief accounts of camera outings are also desired for publication.

So many orders for sample copies were received that our first edition has been wholly exhausted, with many orders unfilled. A second edition will be ready shortly, and we hope that our friends who have not received their copies will be patient until we are in a position to fill their orders. Our modest estimate of the interest likely to be felt in our venture of faith undershot the mark, but we shall print a sufficiently large edition of the August number to meet the increasing demand. Meantime we remind our readers that their subscriptions will be acceptable, and that the sooner they are sent in, the more speedily will we be enabled to carry out certain plans for the improvement of the magazine. A word to the wise is sufficient.

The *Boston Globe* has started a photographic column in its Monday morning issue. At this rate no daily paper will be considered complete without its photographic department. Let the good work spread.

We notice that the *Boston Sunday Herald* speaks of the formation of a league of amateur photographers as likely to become a fact in the near future. We believe that we were the first to call attention to the possible advantages of such an organization, and we would be pleased to receive correspondence on the subject.

Loss of Tone in Fixing Silver Prints.—One of the great annoyances and perplexities of the amateur printer is the loss of tone which his prints too often suffer in the fixing bath. Prints toned in certain baths hold their tone better than those toned by other formulæ, but with nearly all there is danger of a falling off in the hypo. Many remedies have been proposed for this evil. One which we have generally found efficacious is slow toning and a fixing bath made of alkaline with ammonia. Another good method is to add auric chloride and sodic carbonate to the fixing bath. One grain of gold is mixed with twenty grains of soda, and the mixture added to twenty ounces of water in which four ounces of hypo have been dissolved.

We have received the circular of a dry plate factory setting forth their reasons for packing plates face to face without any separators between them. These reasons are the freedom from separator fog and the lessened danger of accidents to the plates, secured by this method. A year's experience with plates packed in this way has proved to our satisfaction its superiority over any other method. We have long been in the habit of so packing our plates when making ready for a long trip, and no accidents have resulted from so doing. In repacking exposed plates which are to be developed at home, we pack them face to face, with nothing between them, in bundles of six, and tie each bundle tightly with a stout cord before putting them in the boxes.

We learn that Mr. Gustave Cramer devoted much of the time of his recent trip to Germany to the study of orthochromatic methods, and that he proposes to engage extensively in the manufacture of these plates. This will be welcome news to the large number to whom the Cramer plate has become a daily necessity on account of its many good qualities.

The tenth annual convention of the Photographers' Association of America will be held at Boston in Mechanic's Hall, August 6th to 10th inclusive. Mr. W. I. Lincoln Adams of the *American Photographic Times* will read the report on the progress of photography. As many notable prizes are offered, the collection of photographs will undoubtedly be exceptionally fine. The art gallery will be open to the public on the evenings of the 8th and 10th. An additional interest attaches to this meeting, from the fact that the semi-centennial of Daguerre's discovery will be appropriately observed on the closing day.

Mr. H. G. Thompson, of the Blair Camera Company's Chicago office, 206 and 208 State Street, writes us that their salesroom will be open every Monday and Friday evening, in order to accommodate resident and traveling amateurs who may wish to change or develop plates, or purchase supplies for an early start on the morrow. Any one who has ever happened into a strange city after nightfall with his stock of plates exhausted, or with no other place for changing than the hotel bedroom, will be glad to know that in Chicago at least he may be sure of a welcome, a dark-room, and a well appointed stock to meet his wants.

In addition to our New York office we have secured quarters in Boston and Chicago, to either of which any matter for the magazine may be sent. The Boston office is at No. 10 Central Street, presided over by an enthusiastic amateur, Mr. W. G. Chase, editor of the *Boston Sunday Herald's* photographic department, and the Chicago office is with the Blair Camera Company, 206 and 208 State Street. At this office Mr. Henry G. Thompson will gladly welcome any friends of the magazine, give them the use of his finely-appointed dark rooms and reading-room, and do all in his power to entertain the stranger within his gates. We hope that our friends will appreciate our efforts to make communication with us easy, and that they will make such use of our branch offices as they may wish. Our motto is "Ich Dien," and we shall endeavor to live up to it at all times.

We have received No. 1 of *The Optical Magic Lantern Journal and Photographic Enlarger*, a monthly journal devoted to lantern work and enlarging. The new journal will be conducted and edited by Mr. J. Hay Taylor, a son of Mr. J. Trail Taylor, of the *British Journal of Photography*. The contents of the first number are varied and interesting, and we wish the new journal all success in the field which it seeks to make its own.

A Novel Camera.

[Described by Mr. F. C. Beach before the New York Society of Amateur Photographers.]



FIG. 1.

Fig. 1 is a general view of the camera. It has a peculiar spring hook inserted on the under side of the fold bed for locking the same automatically as it is bent down horizontally. There is a reversible back shown in detail in Fig. 3 and a novel rising front made in three sections, one sliding over the other, the under side of each being lined with plush. The center section of the front holds a wood ring which is clamped by a large flange-like brass screw ring. The wood ring supports the lens, and is plainly seen in Fig. 1. As the camera has no swing back it is intended that this movement shall be effected by the lens. The universal joint formed by the wooden lens ring permits the lens to be tilted in any direction, when loosened by rotating the brass screw clamp ring to the left. There are two levels inserted in the camera at right angles to each other so that it may be quickly levelled.

Instead of tilting the camera upward it is levelled, and the lens elevated or lowered on the rising front to the desired position, then the lens is tilted at any desired angle to bring the picture on the ground glass in proper position. The camera is very substantially built, and is fitted with a new style of metallic plate holder shown in Fig. 2. *A*, a metal pocket or case, slides over the

plate holder center, *B*. The latter is simply a sheet of metal stamped out deep enough to permit a single plate to be inserted. The plate is pushed against the spring and passed under two hooks at the opposite end. The spring end is covered with a cushion of plush which acts as a plug to exclude light after the plate carrier is pushed home. There is in this end a small eye in which fits the point of a flat spring as shown on the left of Fig. 3.



FIG. 2.

The ground glass is pressed inward by two flat springs, and clamps the plate holder when the same is inserted. In the end of the reversible back is fixed a light-excluding valve. When the single plate holder is pushed in behind the ground glass (see Fig. 3) until the eye in the end engages with the point of the left-hand spring, it is in position to operate. The outer case or sheath (*A*) is then drawn out like a slide, leaving the center (*B*) with its

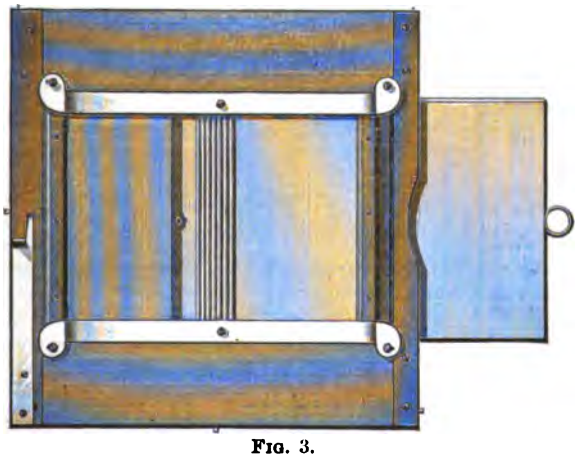
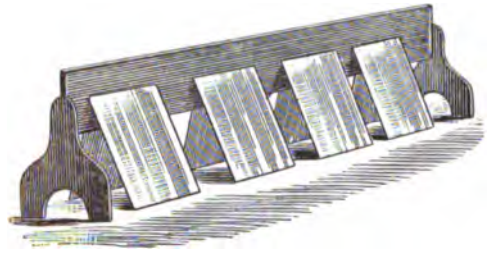


FIG. 3.

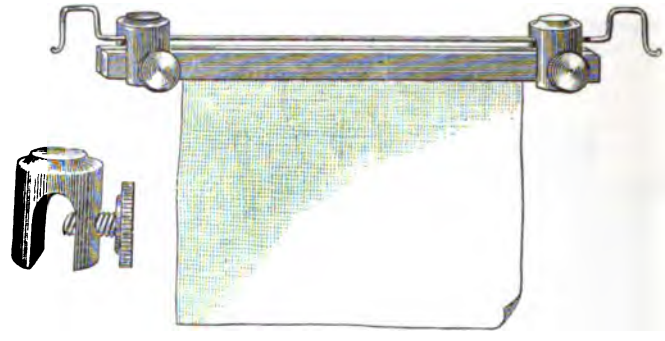
sensitive plate, in the camera ready for exposure. After exposure the outer case (*A*) is pushed back, and the spring on the left, pulled outward slightly with the finger, withdraws the point from the eye-hole in the end of *B*, and permits the whole holder to be easily removed. The holder takes up very little space, does not warp or shrink, is less costly and weighs no more than wood. It is rather a novel idea to use the outer sheath or casing as a plate-holder slide.

Handy Dark-Room Apparatus.

The ordinary drying rack is open to the objection that, when filled, the plates being close together dry slowly and irregularly. This objection is removed by the use of the simple contrivance which we illustrate here. The original was described in a recent number of the *Journal de L'Industrie Photographic*. The cut makes description unnecessary. Our modification consists simply in the addition of a bottom board with thin strips along each edge to hold the plates, thus allowing the whole arrangement to be carried out into the open air. The rack is made of thin, hard wood, well shellacked, and a piece of thick blotting paper is laid on the bottom board to absorb the moisture that runs down the plates. The rack is simple, easily constructed, and efficient, as we know from actual use.



A useful piece of apparatus, of French origin, for washing or fixing flexible films, is shown in the cut below. The films are clamped between two narrow strips of thick ground



glass by means of two of the small clamping screws used in galvanic batteries. The piece of bent wire shown in the cut serves to suspend the film in the fixing or washing tank of galvanized iron. We have found this arrangement a great convenience.

Blue-Print Paper Making.

BY JOSEPH P. BEACH.

Four or five years ago the writer began to make prints upon "Ferro prussiate paper," purchased from the photo dealers. When it was obtained fresh from reliable manufacturers the paper was of good quality, and for a few weeks it would give very satisfactory results, then the prints lacked brilliancy, and soon the paper gave a dull deep blue of no value as pictures. This was because the paper, by age and dampness, had deteriorated. The only remedy was a new purchase of freshly-made paper. Frequent purchase of paper (only to throw nearly half of it into the waste-basket) was somewhat of a tax upon the purse, besides being very trying to the temper of the operator when his prints proved to be worthless.

There was also the disadvantage of one who lived in the country, far from the source of supply, in procuring paper when most needed.

There are a large number of amateurs who would, no doubt, be delighted to furnish each of their friends with a picture, if the thing could be done without much trouble, and at a minimum of expense.

This paper is therefore written for the purpose of informing those who are interested how they may proceed to make blue paper prints to *give away* or keep as they may see fit, without incurring much expense, or spending much time in the manipulation.

The writer does not propose to detail his various experiments, but will give the best results finally reached after a series of trials, during which he used nearly every known formula on the subject, beginning with that of Professor Gowroskovitz, who pretentiously styles himself the "inventor," and dates his invention from 1870, while it is well known that, as early as 1840, Sir John Herschel experimented so exhaustively with the same ingredients as to reach results almost equal to those of the present day.

The writer does not pretend to any invention, or to relate more than he has ascertained by his own manipulations, largely aided by ideas obtained from others, whose language he may unconsciously use in attempting to make the process of blue paper making plain to the comprehension of the uninitiated.

Among the many formulæ the writer has tested was one that came from the Smithsonian Institute at Washington. It was a double, back action recipe, involving printing first and developing afterwards, but resulting, in the writer's hands, in no better prints than any other paper of a poor quality. It had the advantage only of keeping for a long time, and the greater disadvantage of the operator having to serve an apprenticeship in learning how to print before applying the chemical developer.

The blue paper will not take the place of silver prints, or recommend itself to everybody as a "thing of beauty," yet prints may be made on this paper that will, to many persons, be "a joy forever," the chief advantage being the permanent character, and the ease with which they may be developed, in a bowl of clean water. After printing, the positive is simply washed in a few changes of water, which completes the process.

The chemicals required for blue-print paper are:

1. Ferrid cyanide or red prussiate of potassium.
2. Ammonia and citrate of iron.

Buy half a pound of the red prussiate and a half-pound bottle of the citrate of iron and ammonia. The ferrid cyanide should be of a good quality; it comes in hard lumps, which may, if necessary, be broken up with a hammer. The following formula will make enough to sufficiently cover six sheets of paper 17 x 23, or enough for four dozen pieces 5 x 8 and two dozen 3¼ x 4¼, which will be the quantity an ordinary amateur will use before it loses its good qualities.

Into a small, wide-mouth bottle, having a good cork, put *sixty* grains of ferrid cyanide of potassium; upon this pour an ounce and a half of warm, boiled water. If the water is taken from a tea kettle, it is well to filter it. Buy a small glass funnel and some filtering cotton, a little of which goes a great ways.

After the cyanide has been completely dissolved by vigorously shaking up in the bottle, filter it into another small, wide-mouth bottle, which should be allowed to stand for an hour or two, well corked. This may be done in broad daylight.

When ready for use take *ninety* grains of citrate of iron and ammonia and add it to the ounce and a half of fluid ferrid cyanide. This should be done in the dark-room, or in a room where the daylight is excluded and the light shaded on the operating side by a piece of yellow or red paper.

Shake the bottle vigorously for a few minutes, and set the mixture away in a dark place. The bottle may be put into a dark pasteboard box, or wrapped in a piece of red muslin. Let it stand an hour or two, longer or shorter if necessary.

The citrate of iron and ammonia is very sensitive to humidity. It comes in little dark red scales, which stick to the fingers and everything else in damp weather, but if a dry spoon and a dry piece of paper is used it is readily handled.

After using, the bottle of citrate should be corked and a piece of paper pasted over it to

exclude air. Having procured some good linen and cotton paper—unsized Rives paper is best—proceed as follows:

Get a piece of thick pasteboard or a pine board, cut to the size of your sheet of paper. Tack the left-hand edge of the paper to one edge of the pasteboard, with two or three draughtsman's tacks. Now, in a dry room (lighted as before described), pour your mixture into a white saucer; it will be of a dark red-brown color. A piece of clean coarse sponge, three inches square, is now dipped into the mixture, taking up as much as the bottom side of the sponge will absorb. A little downward pressure soon gathers enough of the liquid, which at first does not readily attach itself to the sponge. With this, sponge the paper from left to right with a light even pressure, covering the whole sheet as speedily as possible to prevent curling at the edges, then move the sponge over the paper at right angles to the first direction, and so on alternately, until you perceive the whole sheet has an even light brown color, very much resembling the color of a cup of coffee with milk in it.

The sponge may be laid upon a plate while the tacks are removed from the pasteboard, or board, if one is used. With a couple of pins, one in each corner, or in any other convenient way, hang up the coated paper to dry. When the paper is all hung up to dry, wash out the bottle and sponge, and clean up generally, although there is very little to clean besides the sponge. The entire operation occupies about half an hour.

Cleanliness is essential, because wherever any article used in making blue paper gets into daylight it soon turns blue, and nothing but potash will bleach it white. Care should be taken to keep the hands and fingers (if greasy or damp) off the white paper, or the coated paper.

In a couple of hours, in a warm, dry room, the paper will be dry enough to put away. The sheets should be placed in pairs, the coated sides towards each other, and at first loosely rolled into a roll about six inches in diameter, then this roll wrapped in several folds of wrapping paper, and all again wrapped in some red muslin, when it may be put away for the night, or until wanted for use.

Every amateur will know *when* he needs some paper, and just about *how much* he will want to use. He can then fold it, coated sides in, to the proper size, and with a case knife, or sharp paper cutter, cut it to suit. The cut up paper, coated sides towards each other, should be put in a light-tight box and carefully excluded from dampness. It will keep for from one to three months, if care is taken to prevent *light* or *dampness* from reaching it.

The operation of cutting up paper should be done in a dark room, or one lighted as before described, and all unnecessary fingering of the coated or even the white side of the paper should be avoided at all times, especially while printing.

It will readily occur to the amateur, who has had any experience in mixing chemicals, that the proportions here given may be halved, doubled, or quadrupled, according to the necessities of the case, but it should be remembered that a very great departure from these proportions will result in a change of quality in the prints, and in consequence one batch of paper will not be exactly as good as the one preceding, or *vice versa*. Experience has taught the writer; but if others wish to experiment they will the sooner arrive at conclusions which suit them best.

The paper made after this formula has worked better, in the writer's hands, than any other he has ever used, and he has used many different kinds, made after a dozen or more of formulæ, which gave as many different results as there were authors or inventors. One kind would print rapidly and remain blue in the whites; another would be very long in printing, and then the blue would be almost too pale to be of service. In the formula here given the printing of a good negative, under a bright sun, has a minimum of five minutes' exposure to a maximum of ten minutes; but all good negatives should be printed in from five to seven minutes.

In a few days this paper turns to a light, faded green color, and so long as this color remains light green the paper is in good condition. If the paper begins to assume a dark green or blue it may as well be discarded, for the resulting prints will not be satisfactory. In this connection it will be well to observe that a *poor* negative will make a *poor* print, while a *good* negative will always give a *good* print.

Printing on blue paper should be done in bright sunlight, where no shadows fall on the

glass, and if a negative is once timed, the same exposure, under similar conditions, will almost invariably produce an equally good print.

In a very subdued light, or the dark corner of a room with closed blinds, is the proper place to handle blue paper, or to put it into the printing frame, or to examine the print before development.

A properly-printed blue print will have a rusty blue tone, the whites remaining of a faded green color. A little experience will teach an amateur all the mysteries of printing.

When the print is taken from the frame it may be consigned to a light-tight box until as many prints as desired have been printed, when they may be developed by simply plunging them, one at a time, into a bath of clean, cold water. Care should be taken to do this in a subdued light. Strong daylight should never be allowed to shine upon the print until after it has been under water, and the surplus chemicals floated off.

At the first washing fine air bubbles are likely to appear; a gentle movement under the water will soon remove these. It should, however, be done at once, or the print may be spotted. Iron or tin vessels should not be used, and only two or three prints washed in the first basin of water; then they should be removed into another water bath. After this let the prints soak in clean, clear, cold water until the whites appear bright, and the blue of a handsome color.

The writer does not believe in soaking these prints as long as some experts recommend. The fibres of the paper will rebel against such treatment; therefore, as soon as the prints look satisfactory they should be removed from the water. If the washing is done where a strong light falls upon the print it is apt to set the blue color remaining in the subtance of the paper beneath the whites, and the resulting print will show signs thereof. In washing it is always better to keep the prints face down in the water for some time before turning them over, except to examine. Attention to these particulars will be rewarded by good bright prints, while carelessness will meet with its usual penalty—a poor print.

A good blue print is seldom made under a dull exposure. The result is a dull green color, and the printing on dark days is not advised, unless the operator does it for an experiment, or on some occasion when he has no other alternative. On bright, sunny days in June, July, August, and September, blue prints may be made from nine A.M. to six P.M.; but after four o'clock the exposure must be from one-third more than to twice the time of a normal exposure.

In the last *International Annual* for 1889 will be found an article by C. B. Talbot, which the present writer recommends to the attention of amateurs who care to make their own paper. The formula is substantially the same as given in this article, with the addition of four drops of aqua ammonia. This may be an improvement, but its value is not apparent. Mr. Talbot has, no doubt, had a large experience, and his article treats the subject in a common-sense style; nevertheless, some of his statements may be open to criticism. He claims that the red prussiate of potash cannot be kept in solution. It can be kept a very long time, if put up in a well-stoppered bottle, and it is very doubtful whether even strong daylight would very much disturb its quality. The citrate of iron can also be kept a long time in solution, but this should be closely corked, and kept wrapped up in red muslin and put away from the light.

For the information and use of those who prefer to keep their blue-paper chemicals in a form easily accessible, ready for use in small or large quantities, without the trouble of frequently weighing out the ingredients and mixing, as herein described, the writer gives the following as the result of his own experience:

1. Mix 240 grains ferrid cyanide of potassium (red prussiate) in four ounces of water, filtered (after being boiled in a copper tea-kettle) before using. When the red prussiate has been thoroughly dissolved, filter it into a six-ounce bottle, cork it tight; label it, with date of mixing, and put it away in your closet, or let it stand on a shelf with other bottles until required. This stock gives sixty grains of red prussiate to the fluid ounce.

2. Mix 360 grains citrate iron and ammonia in two ounces of filtered, boiled water; put in a three-ounce vial, shake it up well, then cork it tightly. Now wrap this bottle up in

several folds of red flannel, and put it away in a dark place. This stock gives ninety grains to the half ounce.

When it is required for use take of No. 1 one fluid ounce, of No. 2 one fluid half-ounce; put in a mixing bottle and shake vigorously a few minutes. This quantity ought to cover six sheets of paper, and if it does not it will be because the operator spreads the fluid too profusely. In sponging, the fluid should be absorbed by the paper as the sponge passes over it, and the sponge, sufficiently moistened, should pass over the paper often enough to cause every part to take its proportionate amount of fluid. When this has been done, and the paper, all over its surface, has an even light brown color, the operation should cease and the paper be hung up to dry. There should be no rubbing *in* of the chemicals. Let the paper, as it were, take in the mixture. The mere weight of the fluid in the bottom of the sponge is almost enough pressure to use. In a few minutes the operator will discover how to do it, and he will do well to always avoid overdoing it.

A good quality of fine linen cloth can be manipulated in the same manner, but it takes longer to dry. The resulting prints, of course, will not be like paper ones, but if care is taken in the sponging not to let any fluid blotch the back of the linen, some very pretty handkerchief pictures can be made and presented to the amateurs' lady friends. White silk or satin of a good quality can also be sponged, and with careful manipulation will come out almost as clear in the whites as paper. White cotton cloth of a fine quality behaves well under this process. The sponge should not be gritty, and all foreign substances seen on the surface of the paper, while sponging, are best removed by using the edge of a scrap of paper, rather than the fingers. The entire sponging may be, and should be done without soiling the fingers of the hand using the sponge. The part of the sponge used as a handle remains comparatively dry, and only the tips of the fingers need be soiled while hanging the paper up to dry. Even this can be avoided by not sponging two of the corners of the paper. Avoid, as much as possible, getting any of the mixture upon the back of the paper. It is easily done, and when one sheet has been hung up see that none of the fluid is left upon the board, before laying down another sheet.

At some future time, Messrs. Editors, the writer may add some explanations to what is here written.

This communication will doubtless be found enough to instruct any amateur with but a small amount of gumption how to mix his chemicals and coat his own blue paper, thus enabling him to "give away" all the blue prints he wishes, at a very moderate cost of both money and labor.

It only remains to add up the cost of making, say a dozen sheets 17 x 23 of a good quality of paper:

Chemicals, ...	10 cents.
Paper, ...	30 cents.
Sundries, ...	10 cents.
Total, ...	50 cents.

For which trifling sum the blue paper maker will get eight dozen pieces of 5 x 8 and four dozen pieces 3¼ x 4¼, or nearly two hundred pieces of 4 x 5, which size is probably most serviceable to the amateur who will be likely to prepare his own Ferro prussiate paper.

The American Lantern Slide Interchange.

The season of 1888-9, ending in June last, has been a most interesting and profitable one for the Interchange, and the latter has operated very smoothly, owing to the adoption of a uniform set of rules on the mounting and labeling of slides.

The quality of the slides was much superior to those of previous seasons, and each set was arranged to introduce, as much as possible, a variety of subjects into an exhibition. The annual report of the manager, Mr. George Bullock, of Cincinnati, O., sent out about two months ago, has appended an interesting statement regarding the slides submitted

during the year. There were, he says, distributed among the nine societies participating, 100 contributors and 487 slides, divided as follows: Photographic Society of Philadelphia, 22 members, sent 97 slides; Philadelphia Amateur Photographic Club, 11 members, sent 65 slides; Society of Amateur Photographers of New York, 16 members, sent 74 slides; Pittsburg Society of Amateur Photographers, 9 members, sent 45 slides; Cincinnati Camera Club, 11 members, sent 55 slides; Chicago Lantern Slide Club, 14 members, sent 50 slides; St. Louis Camera Club, 11 members, sent 50 slides; New Orleans Camera Club, 3 members, sent 36 slides, Louisville Camera Club, 3 members, sent 14 slides.

One hundred and forty of the slides were made by the wet collodion process; four by the Taupenot process; the balance being on gelatine plates.

During the month of May the directors of the different clubs elected an executive committee to manage the affairs of the Interchange for the season of 1889-90, as follows: George Bullock, Cincinnati, O., Manager; William H. Rau, of Philadelphia, Pa.; and F. C. Beach, of New York. In order to concentrate all the best work under one organization, the Philadelphia Amateur Photographic Club withdrew from the Interchange, leaving Philadelphia represented by the old society. Next fall the duty of the executive committee will be to examine and approve each set of slides sent for inspection, previous to their being sent around to the different associations. It will also select from the 487 slides shown during 1888-9, the 100 to be sent abroad to the Camera Club of London, in November next, and will distribute the 100 slides received from England this year, among the contributing clubs.

The committee has addressed a letter of advice to each club, suggesting subjects for illustration, dwelling specially on the point that quality, not quantity, is what is wanted. A few slides of superior artistic and interesting merit, well described, is preferred to an abundance of ordinary material.

The illustration of cities, begun by the Boston Camera Club, is being undertaken as an enterprise separate from the organized Interchange, by several clubs, which, if the subjects are well chosen and clearly described, will become quite a feature during the coming winter season. Lantern slide making is growing to be one of the most fascinating branches of photography, being easier and more satisfactory to do than silver printing. The Interchange was organized for the purpose of bringing out the best work, that it may be seen in different parts of the country by the lovers of the art, thereby exercising an educational influence of much value.

CORRESPONDENCE.

[NEW YORK LETTER.]

ELECTRIC DARK-ROOM LIGHTS.

Nothing of especial interest in photography has transpired in New York during the months of June or July, unless it is the announcement that a new transparent film, capable of being made in long lengths and as flexible as paper, is soon to be used. Amateurs have been waiting patiently to have a chance of testing it, but the delay necessary to perfect such a radical change has lost to them the best half of the summer. It is presumed fine examples of the work made on the film will be shown at the Boston Convention in August.

Matters in the societies are very quiet. Many of the members are away on their summer vacations or have gone to see and photograph the Paris Exposition.

At the New York Society of Amateur Photographers the new electric lights for the dark rooms are being put in. A fish globe, about eight inches in diameter, suspended over each sink is filled with a non-actinic colored solution. Resting on the bottom of the globe, immersed in the solution, is an incandescent electric lamp connected by insulated wires to a faucet at one side. When the electricity is turned on, the solution in the globe is

illuminated, and gives out a soft, non-actinic light, somewhat brighter at the bottom than elsewhere. The effect is very agreeable, and is quite a novelty in dark-room illumination.

Mr. A. L. Simpson, of the society, we believe, has supervised this particular arrangement of the lights, and some other improvements. These include separate divisions, or stalls, built in the dark-room in front of each sink, equipped with bottles, trays, hypo, and washing boxes, so that each individual may develop unmolested by his neighbor. Other improvements are contemplated. The officers are looking for larger quarters for the society, and are in hopes of securing a location in a new building which can be easily arranged to suit the needs of the society. The present central location of the society is very convenient.

A visit to the rooms of the New York Camera Club showed that a considerable outlay had been required to furnish them so tastefully and handsomely as they appeared. They are probably finer and handsomer than those of any other photographic organization in this country, which is as it should be, for such a wealthy city as New York.

The dark-room, though not very large, is very neatly and conveniently arranged, and is based on the stall system, where each operator is separate. Each room is equipped with all the ordinary trays, bottles, and chemicals, and a seat, that one may sit while developing. The walls are painted an orange non-actinic color to avoid reflections of white light. There is a locker room, illuminated by a small, square, roof skylight, and a general work or copying room, adjoining which is a small room reserved for printing. Members usually assemble at the rooms in the evening and chat about photography.

A short time ago we had a very pleasant call from Mr. Wm. M. Butler, Secretary of the St. Louis Camera Club, just previous to his departure on a summer trip abroad, to photograph the Paris Exposition and Switzerland. He had with him a 4x5 Detective Camera, of his own construction, fitted with a special magazine compartment for holding several celluloid films. A Bausch & Lomb shutter was attached to the lens. His films were coated especially for him. The results he brings home will doubtless be very interesting, and it is hoped will demonstrate the reliability of these new films.

We were told by another amateur, just returned from an extended trip to California, some 800 Kodak exposures having been made, that Yellowstone Park is the favorite spot for the English photographer to photograph in. In endeavoring to get a picture of a pretty Indian girl he had some trouble. She persisted in covering her face with a shawl and would not withdraw it in spite of a great amount of coaxing. At last a silver quarter was put into her hand. Immediately the shawl fell, and she exclaimed "Go ahead."

Miss Catherine Weed Barnes, of Albany, N. Y., has just returned from a very successful Western trip, having secured excellent negatives, both on plates and films. She carried a 5x7 Detective Camera and other valuable instruments. She is supposed to have one of the best equipped photograph portrait studios of any lady amateur photographer in this country. The results of her trip will doubtless be seen at the next exhibition to be held here in 1890.

B.

Editor American Amateur Photographer:

I am one of the large body of amateurs that reads and profits by the experience of others, yet makes public but little of its own experience in return. There is, no doubt, much valuable information lost to the general fund in this way. It is not my intention, however, to enter into an analysis of this matter, but instead I will tell brother amateurs of a new hand or "Detective" camera that will, I think, be hailed as a thing really novel and a great improvement in that class of cameras.

The most expert amateurs have complained from time to time, as is witnessed by hundreds of published letters on the subject, that no perfect hand camera exists, and the principal points complained of are these:

1. The nuisance of having to carry at least six plate-holders in order to have sufficient plates for a fair day's outing.

2. The inability to disguise the box for the reason that it must be opened from time to time to change holders or draw-slides.

3. The fact that the act of changing a holder or drawing a slide "gives the whole thing away" at once, attracts curious attention and scares the "game" away.

4. That the thing is generally "not just ready" when most wanted, and so a valuable opportunity is lost.

Without extending the list and alluding to the too well-known difficulties with the shutter, the focusing, and a dozen other matters, I will state that all of these complaints are well grounded, as proven by my own experience.

I never cared a great deal for landscape work, and my ambition was to get characteristic groups of figures, especially in certain parts of New York City, which are replete with fine motives of this sort.

To get at these motives or subjects, I quickly found, was practically an impossibility with the best of the hand cameras on the market, and I think that the experience of brother amateurs will support me in this statement. To overcome the objection to carrying and manipulating plate-holders there was the roll-holder. This, however, was not to me satisfactory, and I do not think will ever be entirely so even if the perfect film be put upon the market. It will always be pleasanter to work with glass plates and less trouble in every way.

There was but one thing left to do and that one thing was to construct a camera to meet the requirements, and after much labor and experimenting, and several failures, I have now a camera that, although not perfect, lets me out of bondage, and I get subjects that I could not approach with my old cameras, and I flatter myself that very few amateurs can show a more interesting and technically good collection of "figure pictures" than myself.

I may now describe, as far as possible, this new apparatus, stating incidentally that its merits having been noticed by an enterprising New York supply house it will soon be for sale at a price that will not be beyond the reach of any one who wants a good camera, and I take pleasure in feeling that I give to fellow-amateurs a hand camera that will be nearly all they desire.

The box measures 11 inches long by 7½ inches high by 5¾ inches wide, which is smaller than any camera of equal capacity in the market.

By using a wide-angle and short-focus lens the box could have been made two inches shorter, but as long focus lenses give more picturesque results it is deemed advisable to adopt that kind, 6½ inches being the focus used.

The camera is fitted to carry one dozen 4x5 glass plates or ivory films; it is loaded in the dark-room in less time than is required to fill two common plate-holders, and when loaded the cover is slid into place and the box is not again opened until the plates are to be removed for development. When the cover is in place the box is locked automatically by a secret device which defies detection and one not in the secret cannot open it. This done, I am ready for the field of action. Is it the streets of the city? Then an imitation express package cover is slipped over it in a minute. Is it the sea-shore? Then it is dropped into a neatly fitting lunch-basket, wherein it remains until my return. A few turns of the rotary shutter winds it for the day, and after each exposure it is instantly ready for another without re-setting. When it is stated that the whole twelve plates can be properly exposed in succession in a period of two and one-half minutes it will be readily understood that there is no "monkeying" with slides or plate-holders, for no sooner is a plate exposed than it is disposed by the turn of a key or button, and another is ready in the focal plane.

The shutter is not released by pressing the button as is the case in all other cameras, but instead is set off by the release of the button, thus making it in some respects like a hair-trigger gun, no disturbance of the camera ensuing therefrom.

In conclusion I would say that this camera is extremely simple in construction and therefore not liable to get out of order. It is mechanical throughout, every action is positive, and no unreliable springs or friction devices are used. It has never failed me, and I have used it for more than a year, and appears to have only this principal fault, that it is so easy to handle the plates that my bills for 4x5 plates have more than doubled. As an offset to this, however, I may state that I have an unusually fine collection of negatives of all kinds of subjects. Let some one now give us a cheap lantern that will handle slide automatically and we will be happy for a while. And while speaking about this lantern I would say that it would be just as well to arrange it, even if it has but one tube, so that the views will be dissolving. It will not require much effort and there is no charge for the suggestion.

Should any of your readers desire, I will furnish a full illustrated description of the camera in the future.

F. A. HETHERINGTON.

SOCIETY REPORTS.

[Under this head we propose to publish all society matters of scientific or technical value, which are of interest to amateurs generally. Our space will not allow the insertion of mere routine matters. Reports of Field-Days, Exhibitions, etc., will be gladly received and inserted, if received previous to the 15th of each month. Secretaries will confer a favor by forwarding early reports of meetings.]

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

At the regular June meeting, held June 11th, Mr. James S. Stebbins, Jr., read a very technical paper on the "Use of Certain New Organic Reducing Agents as Developers" Most of the compounds treated of were aniline derivatives. A special vote of thanks was accorded Mr. Stebbins for his paper. After the reading of the paper, Mr. F. C. Beach described a new camera and plate-holder, the invention of Mr. S. Wing of Boston. (See page 62 for description and cuts). President Canfield then made several announcements; and the Centennial Committee reported that the net proceeds received from the Chickering Hall entertainment, and turned over to the Memorial Arch Fund, was $372.74. Votes of thanks were passed to the Rev. Robert Collyer and to the committee for their efficient services at the entertainment, and to the Eastman Company for a fine enlargement presented to the society. The secretary, Mr. Duffield, announced the appearance, about July 1st, of a new flexible film for roll holders; and specimens of developers, and other chemicals in powder sent in by Messrs. Anthony & Co., were exhibited.

Mr. A. Peebles Smith then gave a very interesting description of his method of making lantern slides, which presents some novel features. The brown tones, which the speaker deemed necessary for slides to be thrown on a large screen, were obtained by the use of anti-pyrine combined with caustic potash. This developer was stated to be very slow in action, requiring half an hour to develop one slide. The anti-pyrine is first dissolved in alcohol. Mr. Smith stated that he cleared his slides, which, after fixing and while wet, showed the image in relief, by placing them film side up on a heated metal plate, which was whirled until the lines seemed to merge into each other. Mr. Smith also used the hyroquinone developer in connection with caustic potash and phosphate of potash, the latter to impart a warmer tone. After development the plate is flowed with a solution of carbonate of barium to clear it. The plate was next washed to remove the particles of barium. For general positive dry plate work the ferrous-oxalate developer is preferred, the potash solution being acidified with oxalic acid. Sulphuric acid is added to the iron solution, and by varying the amount of acid the tone of the slide may be altered. The proportions recommended by the speaker were two drams of the iron solution to two ounces of the potash. Quick development is preferred, since it produces grainless slides.

Mr. Smith then described the apparatus he uses in slide making, which allows the reduction of large negatives by means of magnesium ribbon. The negative is secured in a printing frame, having the hinged back removed. Over the front of the frame is pasted a thin onion skin paper to act as a light diffuser. The frame is placed in an open box resting on, or secured to, one end of a board, the camera being at the other end, the space between being left unprotected. The image being focused by means of an ordinary lamp, the exposure is made by burning two or three inches of magnesium ribbon behind the onion skin screen; while burning, the ribbon is moved about so that every portion of the negative may be equally illuminated. If desired, the intensity of the light may be varied by interposing a sheet of orange colored onion paper. In the case of negatives of great contrasts, when it is desired to bring out the detail in the high lights, without over-exposing the shadows, a short general exposure is given, and the light is then held opposite the denser portions, the thin parts being shaded with an orange paper screen. Mr. Smith expressed the opinion that by the use of orange colored screens and the manipulation of the light, better slides could be made than by daylight—an opinion which was opposed by Mr. F. C. Beach, who thought that equally as good slides could be produced by daylight,

with no greater difficulty in dodging the thin parts, while Mr. Stebbins thought that magnesium fumes given off by the burning ribbon would be objectionable to many. discussion concerning processes, which followed, Mr. Smith remarked that, while plate process was quicker than the dry-plate, wet-plate slides were wanting in e half-tones so noticeable in dry-plate slides.

on the meeting adjourned.

evening, June 16th, a special lantern-slide exhibition was held, illustrating ofessor D. L. Elmendorf. The slides shown were made by various processes, lored slides of the Centennial Naval, Military, and Civic Parades, and the sed with a series of views in Switzerland, which were greatly admired, par- ose of scenery in the vicinity of Lake Lucerne, a locality which the professor singularly rich in picturesque scenery.

second special exhibition of slides was given on June 21st by Dr. C. Stuart Welles, strating "The Tour of the Nile." The slides shown were mostly made by professional photographers, selected by the lecturer to illustrate special points of interest in the Nile tour. The lecture was greatly enjoyed by the large audience present.

HOBOKEN CAMERA CLUB.

The Hoboken Camera Club took the first of its proposed semi-annual "outings" on Saturday and Sunday, June 15–16 last, on which occasion they selected the romantic and beautiful Hudson, in the vicinity of Cornwall, and extended their trip to West Point. The day of embarkation proved not altogether pleasant, photographically speaking, since a heavy rain came on shortly after noon, and it continued to be cloudy all the afternoon, but Sunday was a glorious day, and the members improved their opportunity. The majority of the members left New York on the steamer Mary Powell, and were met by others who came by rail, at Cornwall, where they made headquarters at the Bay View House. The inclement weather prevented any photographing by daylight, Saturday, but the loss was not felt much, as a grand array of flash-light negatives show how the time was spent. The crowning effort is "The Still Hunt," a much-to-be-desired picture, which may now be seen at the club-rooms. The Sunday negatives are really good, and the first outing is to be commemorated by an album of pictures.

The Hoboken Camera Club is now in possession of a complete meeting and developing room that is a pride to all members and a source of pleasure to show all prospective and present amateurs. Each Tuesday evening members listen to practical demonstrations upon photographic subjects, by a photographer of twenty years' standing, and it has upon its roll some of the old-time picture makers who take pleasure to entertain and instruct whenever an opportunity is presented. The club invites fellow-amateurs at all times to call in. Meetings every Tuesday, and members at the rooms at all times to show visitors and friends the headquarters.

F. A. HUENCH, *Secretary.*

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.

The regular monthly meeting of the P. C. A. P. A. was held June 6th, with President Runyon in the chair and Mr. Knight White as Secretary.

A resolution was passed admitting ten members at fifty dollars each to life membership, the proceeds to be used as a room fund.

Mr. Eckert, of the Mechanics' Institute, appeared before the Association to see if the members would not be willing to give a slide entertainment during the Mechanics' Fair. While the members showed a lively disposition to do as requested, so far as they could, the proposition was left to the executive committee, with power to act.

In response to the prize competition for studies suggested by Longfellow's "Building of the Ship," only two pictures were received. It is to be regretted that they were withdrawn on account of non-competition, for they were both excellent. Had there been lively competition it had been the intention of the Association to publish the study considered by the judges as the best, and to furnish each member with a copy made by reproduction. The

original was to be framed and hung upon the walls of the rooms of the Association. This suggests that did each association in this country give a subject for competition among its own members, publish the photograph of the successful competitor, and exchange with the different societies, artistic effort would be stimulated, each member would try to rival his fellow, and each society would endeavor to produce that picture which should be finally decided to be the most successful of all presented.

A committee was appointed to revise the constitution and by-laws of the association. This important work is necessary because of the rapidly increasing membership. At present none but amateurs can become members, and there are certain restrictions against any member selling his work. In the revision it will probably be decided whether it is advisable to admit professional photographers, and also whether there is a sufficient number of lady amateurs in San Francisco to warrant the society in making special provisions and arrangements for their membership.

A. J. TREAT, *Corresponding Secretary.*

NEW ORLEANS CAMERA CLUB.

In the fall the club proposes to give a grand lantern slide exhibition for its own benefit, the proceeds of the benefit to be used in furnishing and fitting up the new quarters, which by that time it hopes to possess. It goes without saying that a club having as many staunch friends and admirers as the New Orleans Camera Club has, will realize a handsome sum.

LYNN CAMERA CLUB.

The Lynn Camera Club have moved from their recent quarters, at 347 Union Street, and stored their goods until they can obtain more suitable quarters. A syndicate of members is now being formed to build a two-story club house on the estate of Nathaniel J. Bacheller, 40 Broad Street. The rooms will be finished with special reference to the convenience and comfort of members, and will have sky and side-lights for taking portraits, with suitable background to be furnished by the club. The dark-room will receive especial attention in the manner of construction, and will be large and receive the best of ventilation, which will be a decided advantage to those wishing to use it during the summer months. It will be fitted with a large sink, lockers, and such other conveniences as the club may be able to add. The club-room will be large enough to accommodate a goodly number at slide exhibitions, and will have a screen for that purpose at one end. The building will be wired for incandescent lighting, and it is probable that the light will be used in the near future. There are already a number of amateurs who have signified their intention of joining the club as soon as new rooms are obtained, and the committee are desirous of increasing the applications to the largest possible number for election at the first meeting held in the new rooms. Amateurs wishing to join are requested to hand their names to any member of the club, or send name to either member of the committee on membership, viz.: W. H. Drew, 404 Union Street; E. F. Bacheller, 40 Broad Street; J. W. Gibboney, care of Thomson-Houston Electric Company. Members of other clubs who are stopping in the city can be accommodated with a room for changing plates by application to the treasurer, at 40 Broad Street. The club is more than ever alive to the increasing interest in the art of photography, and intends to have quarters that will be a credit to the members and compare favorably with those of the larger cities.

PROVIDENCE CAMERA CLUB.

At the regular meeting of the club, held June 18th, it was voted to take "The Blackstone Valley" for the subject of the next lantern lecture by the club, the intention being to gather material during the summer and fall, and give a public exhibition the coming winter, after the plan of the Narraganset Bay lecture given last winter. It is thought that this field will give the club opportunity for much beautiful and interesting work.

At the same meeting the club adopted rules to govern the New England Lantern Slide Exchange. These will be forwarded, upon application, to societies interested.

J. E. DAVISON, *Secretary.*

LOWELL CAMERA CLUB.

The Lowell Camera Club held their first field-day, June 13th. An excursion on a barge to Beaver Brook, and through the picturesque suburbs north of the city to Richardson's Brook, was the field covered. The committee of arrangements selected the subjects which were photographed by each member from his own chosen standpoint. On the way to Richardson's Brook the party stopped to get a cattle picture. A fine herd of cattle in a pasture afforded a great variety of pleasing groups. A good deal of care was necessary before each photographer was able to secure a satisfactory picture. One of the most desirable groups dispersed just as an anxious artist was about to draw his slide. Finally all succeeded in exposing plates upon good subjects for animal pictures. Richardson's Brook is a favorite resort for artists with brush or camera. Good pictures stand out at every turn of the stream. Here the club spent some time on more brook views, and ended the day's work by each member taking a group picture of the party. Sets of the pictures taken on this field-day are to be printed for joint exhibition. GEORGE A. NELSON, *Secretary.*

NEWARK CAMERA CLUB.

At the regular meeting, held June 10th, two new members were elected; the committee on the Greenwood Lake excursion reported a successful outing, and were discharged with thanks, and the Treasurer's report showed the finances of the club to be satisfactory. A proposition for a three days' trip on the Morris Canal was favorably received, and a committee of five was appointed to make the necessary arrangements. The attention of the club was called to a subscription for the benefit of the Johnstown sufferers. Mr. Bassini spoke in favor of the project of securing more commodious quarters for the meetings, and there is but little doubt that the club will soon be in possession of better rooms. A committee of three was appointed to bring the matter formally before the club. After passing a motion that the members be requested to contribute specimens of their best work for the benefit of the club, the meeting adjourned to view some lantern slides of the Greenwood Lake outing, which was held June 4th, and participated in by eighteen members, who reached the lake in a special car on the New York & Greenwood Lake Railroad. The day was somewhat cloudy, but the trip was an enjoyable one, and some excellent views were obtained.

C. G. HINE, *Secretary.*

CINCINNATI CAMERA CLUB.

CINCINNATI, June, 1889.

The club took their annual outing, May 30th, and notwithstanding a heavy rain, about eighty attended. It was a poor photographic day, but those who went were amply repaid by the social enjoyment of the occasion.

Our first meeting in June was well attended. Mr. Bullock occupied the chair. It was suggested that the club take a number of outings during the summer months, to be conducted by volunteer members; this met with great favor, and immediately the excursions were provided for. Mr. Johnson showed a circular level which was of great interest, and was pronounced of advantage to the worker both for its accuracy and convenience.

Mr. Barton read a paper on composition, with charcoal illustrations. On June 17th the second meeting was called to order with Vice-President Fisher in the chair. A question of having one meeting instead of two, for the months of July and August was brought up and decided that as the times for meetings were fixed by a constitutional provision, no action should be taken. Prints from negatives made at the outing were shown, and it is remarkable that bad as the day was, many choice pictures were made, notably those of Messrs. Johnson, Collier, Gibert, Bartlett, and others.

Mr. Howard Kingsbury of the Philadelphia Society entertained the club with a paper on "Luray Cave and the Theory of Its Formation," with lantern illustrations. Mr. Kingsbury showed himself to be thoroughly competent to handle the subject, both descriptively and

illustratively. All the pictures were made by the use of the electric light, some requiring twelve hours exposure, giving some idea of the time and patience exercised to secure them. A vote of thanks was tendered by the club, coupled with an invitation to meet with us again. The club adjourned early and spent a social hour before separating.

H. C. FITHIAN, *Corresponding Secretary.*

MANHATTEN CHAPTER OF THE AGASSIZ ASSOCIATION—PHOTOGRAPHIC SECTION.

103 LEXINGTON AVENUE, NEW YORK, July 11, 1889.

There is not a great deal to report for our section this month, as we have discontinued our regular meetings for the summer months, the warm weather having such a bad effect on our attendance, that we thought best to have no regular meetings while it continued. A discontinuance of the regular meetings does not by any means signify a discontinuance of the work of the section, as hardly an evening but finds several of the members either at the rooms of the chapter, or in some member's private dark-room, working (if it can be called work) over the developing table. And then you may be sure that we make good use of our too few opportunities to go into the country round about the city, and "take" glimpses of nature which will furnish us with material for lantern-slide and bromide "demonstrations" in the coming fall and winter months.

We are in hopes of being able to hold an exhibition at our rooms during the winter, and are already making preparations for it, feeling that our first exhibition will be of sufficient importance to the section to warrant the spending of a great deal of time in striving to make it a success in every sense of the word.

Before closing I cannot refrain from saying how pleased we all are with the AMATEUR PHOTOGRAPHER, and how we all agree in thinking that the magazine is just what the amateur has long been in need of.

W. T. DEMAREST, *Secretary.*

BOOK NOTICES.

Traité Encyclopedique de Photographie. By Charles Fabre. Paris: Gauthier-Villars et Fils. 1889. Part First, pp. 1.—80; 2 fr., 50c.

The author of this monumental treatise on photography promises his readers full working details of all the modern processes and an account of the transformations by which photographic instruments have reached their present stage of development, and the promise is well sustained by the installment now before us, which deals with the early history of photography, the theory of light, and the construction of photographic lenses. The completeness of the work may be inferred from the fact that no less than thirty different forms of lenses are fully described in the first and second parts. The work will be completed in twenty parts, and we advise those of our readers who are familiar with the French language to subscribe for it.

The Processes of Pure Photography. By W. K. Burton and Andrew Pringle. The Scoville & Adams Co. New York. 1889. Pp. 1.—200; $2.50.

When two such competent authorities as Messrs. Burton and Pringle combine their forces to write a book on photography, there can be no doubt of its value to the camera worker. A careful reading of the pages of "Processes of Pure Photography" discloses a rare wealth of photographic good things. Its thirty-one chapters give an exhaustive treatment of all purely photographic operations, and form a book which should be in the hands of every lover of the art. The typographic make-up of the volume is excellent, as is to be expected from the imprint of the publishers.

A Dictionary of Photography. By E. J. Wall. New York. The Scoville & Adams Co. 1889. Pp. I.—237; $1.50.

A good dictionary of photography has long been needed to form a handy, alphabetically arranged reference book to photographic methods and terms. This want is now supplied in Mr. Wall's book, reprinted from the English edition by Scovill & Adams Co. Only continued use can fully demonstrate the accuracy and completeness of Mr. Wall's work, but we have found its longer articles accurate and well written, and we think that it well fulfills the author's aim of writing a photographic encyclopedia. We could wish, however, that the reprint had been a trifle more thoroughly Americanised, in order to make it a better representative of American photography, but perhaps this is not essential in a dictionary. We heartily commend the book.

List of Dark-Rooms Open to the Use of Amateurs.

HOTEL CORONADO—*San Diego, California.* Said to be the finest hotel in California. The dark-room was constructed under the special supervision of Mr. A. S. Murray, formerly the President of the Pittsburgh Society of Amateur Photographers, and is lighted by electricity, provided with spacious lockers, and fitted up with electric annunciators from the hotel office.

THE RAYMOND—*East Pasadena, California.*

SAN MARCO—*Santa Barbara, California.*

DEL MONTE—*Monterey, California.*

SPENCER HOUSE—*Niagara Falls, New York.*

SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*

HIGH FALLS HOTEL—*Dingman's Ferry, New York.*

FORT WILLIAM HENRY HOTEL—*Lake George, New York.*

PROFILE HOUSE—*White Mountains, New Hampshire.*

THE WESTPORT INN—*Westport, New York.* Has a dark-room with running water.

BREEZE LAWN—*Hunter, New York.* Has a dark-room with running water.

[We shall be obliged if our friends will send us the names of other hotels or houses that have special dark-rooms for the use of amateurs.]

United States Photographic Patents

ISSUED IN MAY, JUNE, AND JULY, 1889.

MAY 7, 1889.

402,680—Film supporting frame for photo cameras; W. H. Lewis, Brooklyn, N. Y.
402,711—Photographic Camera; Erastus B. Barker, Newark, N. J.
402,712—Ground glass attachment for cameras; M. Bauer, Brooklyn, N. Y.
402,806—Photographic camera shutter; R. D. Cleveland and C. A. Hoffman, Minneapolis, Minn.
402,827—Package for photographic plates; D. C. Hoover, Buffalo, N. Y.
402,961—Photographic plate handle or holder; W. K. Moody, Boston, Mass.
403,061—Making iron prints by photography; C. R. McBlair and A. A. Raff, Washington, D. C.

MAY 14th.

403,476—Photographic apparatus; H. Kuhn, St. Louis, Mo.

MAY 21st.

403,574—Photographic camera; C. E. Burlingame, Boston, Mass.
403,647—Photographic Cabinet; J. Cornish, Boston, Mass.
403,887—Picture exhibitor; G. D. Knipp, Stuttgart, Germany.

MAY 28th.

403,994—Photographic camera; James H. Ford and Max Jurnick, New York.

JUNE 4, 1889.

404,375—Photographic Camera Shutter; R. E. M. Bain, St. Louis, Mo.
404,396—Camera Stand; W. H. Fuller, Passaic, New Jersey.
404,534—Photographer's Retouching Machine; Laura O. Girvin and John Loff, Chicago, Ill.
404,605—Rack for Washing and Drying Photographic Plates; W. S. Cullen, Kearney, N J.

JUNE 11th.

404,814—Photographic Print Mounter; John W. Allderige, Waterbury, Conn.
405,130—Mount for Photographs; R. H. L. Talcott, Boston, Mass.

JUNE 18th.

405,454—Roll Holder for Photographic Films; Louis H. Bannister, Rochester, New York.
405,463—Device for Setting or Cooling Photographic Emulsions; James W. T. Cadett, Ashstead, County of Surrey, England.

JUNE 25th.

405,758—Camera Stand; Frank G. Bement, New York, N. Y.

JULY 2, 1889.

406,085—Photographic Plate Holder; George H. Carlisle, Detroit, Mich.
406,269—Photographic Washing Apparatus; J. W. Dalrymple, Solsberry, Indiana.
406,299—Photographic Light Apparatus; L. C. Overpeck, Hamilton, Ohio.

JULY 9th.

406,460—Support for Photographic Films; Ralph McNeil, New York, N. Y.
406,471—Picture Exhibitor; Jacob Reitz, New York, N. Y.

JULY 16th.

406,934—Camera Attachment; O. L. Munger, Gresham, Neb.
407,050—Photographic Paper Roll Holder; E. B. Barker, New York, N. Y.
407,074—Album; C. Jaeger, New York, N. Y.
407,275—Photographic Camera; E. B. Barker, New York, N. Y.

JULY 23d.

407,351—Compound for producing Flash Light; A. Hemsley, Philadelphia, Penn.
407,587—Photographic Camera; W. H. Fuller, Passaic, New Jersey.
407,647—Photographic Roll Holder; George Eastman, Rochester, New York.
407,728—Photographic Portable Compartment for transferring plates; S. Green, Brooklyn New York.

PUBLISHERS' DEPARTMENT.

Messrs. Allen Brothers, the popular Detroit stock dealers, have favored us with a copy of the neat price-list of amateur supplies which they have recently published. They carry a large stock of all the best lines of photo goods, besides being trade agents for the Suter lens. They have recently fitted up a commodious dark-room for the use of their patrons and traveling photographers.

From the firm of Tyler & Shepard, San Francisco, we have received a package of phototype prints, which for careful work and accurate rendering of tone-values we have never seen surpassed by the products of older presses. The firm are the pioneers in this class of work on the Pacific coast, and they will undoubtedly reap a rich reward from their enterprise. In a future number we hope to present our readers with specimens of their work.

SELF-DEVELOPING PLATES.

That is the popular way of putting it, but not exactly the correct technical expression. They are the ordinary dry plates of commerce, having spread in dry form on the glass back the ingredients which go to make up a developer and thereby constitute a novelty which is certainly likely to become quite attractive to the beginner.

We have lately experimented with a few of the plates in the improved Concealed Button Camera sent to us by Mr. C. P. Stirn of New York, and have obtained results that were surprisingly satisfactory. The plates are round, about five inches in diameter. Those we used were imported from abroad, and were made by Dr. Baekeland.

In one of the English journals it is stated that the developer is hydroquinone and soda, but from its action and character we think it is probably pyro and soda. On the glass surface of the plate are two separate portions, half-moon in shape, of crystals perhaps on an average two inches wide. One we suspect to be a solution of sulphite of soda and pyro of the proper proportions—say four grains of pyro to each ounce, which has been spread on the leveled glass in solution and evaporated. The other, a solution of carbonate of soda and sulphite of soda treated in the same way. The plates thus prepared are packed with the sensitized films towards each other in special boxes, so that there is no chance for any particles of the dry developer to come in contact with the film. We made time and instantaneous exposures on the same plate to more closely observe the working of the plates in the developer.

To develop, two ounces of water are put into a 5x8 tray, then the plate is immersed, care being taken to quickly flow the water over the film to evenly wet it. After rocking the tray half a dozen times the plate is slightly lifted at one end with the finger and the tray gently rocked to swash the water against the under side of the plate, thereby dissolving out the salts faster and making the development proceed more rapidly. In the case of a time exposure we found the first sign of an image appeared in a little over a minute after the water was applied and the development proceeded gradually, while for the instantaneous exposure nearly three minutes passed before much could be seen. Gradually, as the salts on the back dissolved, the color of the developer changed, until a prolonged use of it for fifteen minutes turned it to a dark red, so much so that it was opaque to transmitted light. It seemed, however, to go on developing very well. Although the time exposure appeared to be considerably over-developed in proportion to the instantaneous, still they were reasonably clear after fixing and made satisfactory prints. It is said this is probably due to the nature of the developer, which at first is extremely weak in both pyro and alkali, but as the salts dissolve gradually increases in strength about as rapidly as the development in the film proceeds. It thus carries out admirably one of the well-known methods of development, that is, to commence with a weak solution first and gradually increase its strength until the image is fully developed. To the novice, unacquainted with the science of development, it is most fascinating, as he simply exposes in the camera, dips the plate in water, and soon has his picture, needing only a few crystals of hypo dissolved in water to fix it. We advise using fresh hypo frequently to obtain negatives free from a yellow stain. The plates are most convenient to the tourist, who does not want the bother of carrying around bottles of chemicals. We believe, however, the expense of the dry developer is

greater than prepared solution developers, but for many the additional convenience will overbalance the expense. To those who have learned the science of development, the new plates will be looked upon as an interesting novelty, perhaps, rather than of much utility. We think their rapidity is about equal to Cramer's 30. The next novelty may be celluloid ribbon coated on the back with the developing salts and on the front with gelatino-bromide of silver. Then all one will have to do will be to cut off the exposure, put it in water, and in a short time a negative will appear. We commend the idea to manufacturers of plates.

We have lately been experimenting with a gelatino-chloride emulsion paper prepared after Obernetter's formula by Herr Bühler, of Mannheim, Germany, and imported by W. Heuermann of New York City. We have been particularly pleased with the working of the paper, and with the excellent tones which are easily obtained with the toning bath recommended by the agent. The paper may be mat and half mat, in dark pink and violet, or pense and cream, the colors being produced by the chemicals, not by coloring the paper. For delicacy of tone and richness of detail we doubt if this paper can be excelled, and we make this assertion, not merely as the result of our own experiments, but after an examination of prints made by the manufacturer of the paper. Opal glass, coated with the emulsion, can also be obtained of the agent, and it produces a positive which will surprise by its delicate softness those who have had no experience in opal printing. We hope soon to be able to give our readers full working details.

From Gayton A. Douglass & Co., Chicago, we have received samples of the Pizzeghelli cold-bath, platinum paper for which they are agents. Although new to us, we found no difficulty in making good prints by following the simple directions accompanying the paper. Printing is as simple as by the blue-print process, and the results leave very little to be desired. All that is necessary is to print to a sufficient depth, and then wash the prints in tepid water.

We have received the Prize Tour number of the *British Amateur Photographer*, which contains illustrations and letter press descriptive of the prize tour competition of 1889. The number of competitors honored by illustrations is thirty-five, and the list includes some names familiar on this side of the water. Six full-page illustrations illustrate the work of the six successful competitors for the special prizes, and there are twenty-eight smaller cuts illustrative of the work of as many other competitors.

Mr. Henry G. Thompson, of the Blair Camera Co., Chicago, writes us that the company have just completed the finest amateur rooms in the West. The suite includes a fine club-room, five dark-rooms, and a reading-room. Traveling amateurs will receive a cordial welcome. It goes without saying that the AMERICAN AMATEUR PHOTOGRAPHER will be kept on file in the reading-room.

Another well appointed reading-room, the first of its kind in the country, is that of Barker & Starbird, of 56 Bromfield Street, Boston, where all the leading photographic journals are kept on file.

HOW NEW YORK WILL BE REPRESENTED AT THE BOSTON CONVENTION IN AUGUST.

The Annual Convention of Photographers to be held in Boston in August of this year is, on account of its nearness to New York, attracting considerable attention among New York manufacturers and dealers, and extensive preparations are being made for a large display of new goods. In calling upon a few of the dealers we were informed of some of the novelties that are expected to be shown.

G. Gennert will probably send a new Detective Camera, 4 x 5, encased in neat morocco leather, having a good lens, a rotary shutter, time and instantaneous movements, arrangement for focusing when desired at the rear, and means for increasing the speed of the shutter. There is also a focusing index on the side. The plate holders have rubber slides. The name given to the instrument is Montauk. It is intended to supply the want of a medium priced, substantial, and durable Detective Camera. The other regular specialties of Mr. Gennert's will be on exhibition. In addition there will be a display of negatives, packed with films together, contributed by several different parties, which will probably convince many of the practicability of this method.

George Murphy will be located next to White's specialties, such as chairs, head rests, baby holders, etc. Some of the things he will show are Green's Shutters, improved over last year; the Common Sense Vignettes; Kimball's Camera Vignetters, a curtain suspended from a rod on the inside of the camera; Barnett's new Film Carriers and Holders; Ideal Beveler, for beveling prints of odd sizes; Felt Grounds and Floor Cloth; Eagle Lenses and View Cameras; Docoudun's Photometer, for determining the exposure of a plate; Higgins' Automatic Finder; Stoddard's Print Roller, for mounting prints; special flower bordered film negatives and examples of work on the new Pizzighelli paper; there will be in addition a number of other articles and specialities. The Seed Company, who have an office with Mr. Murphy, will send a separate exhibit of their new positive white opaque celluloid film, on which beautiful pictures can be made.

The well known firm of Messrs. E. & H. T. Anthony & Co., will occupy a large space, and in addition to their regular extensive line of goods, will show several new things. Briefly, they are the Lilliput Camera; a new Film Holder; a new Front-focus Novelette Camera; the Normandy Camera, having a special reversable back; the Phantom Camera, something very small and compact; the Victor Camera and equipment, designed to fill the want of a moderate priced machine; a complete line of detective cameras; specimens of the Climax celluloid films; several different forms of flash-light lamps; a new removable-leaf album. Their apparatus will be up to the usual standard, and will repay inspection at the convention.

R. H. Moran will probably send an exhibit of cameras and other apparatus, including his new Common-sense Dark-Room Lantern. The back of the lamp is curved, allowing the silvered glass reflector inside to be tilted enough to project the light downward on the tray. Good ventilation is provided, and a movable eye-shade is attached to the upper portion. Since May the store has been considerably enlarged, having in the rear, near the office, a very nicely fitted up dark-room, for the use of patrons and friends. Mr. Griswold always succeeds in giving practical information to those who patronize the concern, and is particularly fortunate in having a dark-room near by so conveniently situated on the ground floor. A full line of Cramer plates is one of Mr. Moran's specialties.

The Scovill & Adams Company intend to occupy considerable space, and will exhibit new patterns of front focus cameras, film holders, shutters, tripods, flash light devices, and, as usual, a complete line of goods. L. Seavey, Mr. Ashe, and other makers of backgrounds and accessories will be on hand, but Messrs. Leveber Bros., W. C. Cullen, and The Obrig Camera Company probably will not exhibit; their trade being mostly with amateurs. Messrs. Rampsberger & Co. will have an exhibit of the various styles of Steinheil Lenses, and C. P. Stirn & Lyon will show specimens of Self-Developing plates, the improved Concealed Camera, and a Panoramic Camera. There can be no doubt but that the New York display will be the leading one at the exhibition. B.

We have received the first number of a new one-penny weekly called *The Photographic Review*, and edited by Mr. Thomas Bolas, for many years editor of the *Photographic News*. From an editorial we learn that Mr. Bolas' connection with the *News* was discontinued owing to a divergence of opinion regarding its financial management. As the first number of the *Review* was issued within one week of the severance of Mr. Bolas' relations with the *News*, we can hardly judge of the character of the magazine; but Mr. Bolas' name at the head of the title page is a sufficient guarantee of the value of the *Review* to all camera workers. As we are no longer the youngest of the photographic journals, we extend our best wishes to the new venture, and hope that it may long continue to be the comprehensive and wide-reaching review its editor promises us. A novel feature of the *Review* is the use of old-fashioned type in its make-up.

Just as we go to press we learn that the Boston factory of the Blair Company was visited by fire on the 26th ult., and that a large stock of cameras and other photographic goods intended for the coming convention was destroyed. We hope, however, that the characteristic enterprise of the firm will enable them to replace the goods destroyed, and make an exhibit worthy of the high reputation of the house. We understand that the damage was confined to a single floor, and that the stock on the other floors escaped with trifling damage, which will be welcome news to those who find the Blair goods a daily necessity.



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The regular departments are: Correspondence, Notes and News, Photographic Societies, The Chautauqua School of Photography (in Monthly edition), Queries and Answers, Our Editorial Table, Record of Photographic Patents, Commercial Intelligence.

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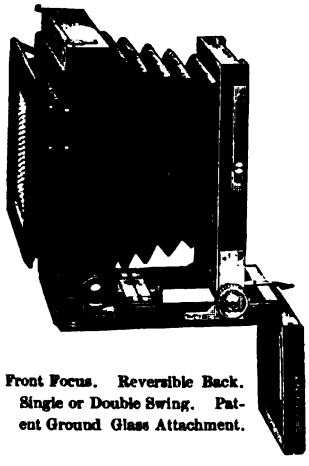
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Very respectfully, JOHN G. DOUGHTY.

Messrs. ALLEN BROS.—Dear Sirs,—Although circumstances compelled me to give up my projected balloon trip this fall, I have used my 3 A "Suter" for other work—photos of animals, viewing, etc. I am glad to say that each time I have used it, it has impressed me with a stronger sense of its good qualities. With your lens and a Prosch Duplex Shutter, which is fitted to it, I feel well equipped for quick work, and feel confident of success in my next balloon trip, whenever that is.

Winsted, Conn., November 26, 1886.

(From the Balloon Photographer.)

Messrs. ALLEN BROS.—Dear Sirs,—I am glad to write you that No. 4 B Suter Lens, which I bought of you some time ago, is very satisfactory. It is about as quick as my ——— lens, and is very sharp focus. I use it almost entirely in my studio. Yours very truly, (Signed) LOUIS C. TIFFANY.

"The Rembrandt," 152 West Fifty-Seventh Street, New York, February 20, 1889.

Messrs. ALLEN BROS.—Dear Sirs,—You ask me to give you my opinion of the Suter Lens, bought of you three or four years ago. It gives me pleasure to write you that it is my favorite lens for out-of-door work. I have eight of various makes. It works rapidly and has great length of focus.

Yours very truly, (Signed) R. SWAIN GIFFORD.

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BOSTON PHOTOGRAVURE CO.

THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., SEPTEMBER, 1889. No. 3.

Our Illustrations.

INTERIORS are difficult subjects which are rarely well handled. Our frontispiece shows what can be done in interior work by a practiced hand. Arrangement, lighting, exposure, and development have all been most carefully attended to; there has been no guess-work, and the result is an unusually satisfactory interior.

Our second illustration is given merely as an example of good marine work. The block was made from a pen-and-ink sketch, and the picture is full of "go," as a marine should be.

Both of the plates were made by the Boston Photogravure Company.

EDITORIAL.

Clouds.

THE possession of a stock of good cloud negatives is a great help to artistic printing. In these days none dispute the superior charm of a well arranged and harmonious sky over one which is entirely blank. The sky is, as it were, a background on which to hang the picture, and just as in portraiture the choice of a fitting background is an important item in the make-up of a picture, so in landscape work, the sky can be made to add to or detract from the view. Before learning how to use cloud negatives, it is necessary to know how to get them. While there is no great difficulty in the way, there are a few wrinkles which will help the beginner in his first attempts at cloud-studies.

In the first place, some importance attaches to the character of the country

selected as the scene of the attempts. A low, level stretch of country, such as one finds at the sea-shore, where a low horizon line can be had, is unquestionably best for this kind of work, since overmuch tilting of the camera is fatal to the best results. In default of this, the summit of a hill-top, free of trees, will answer quite well. The thing to be avoided is excessive tilting of the camera, since this produces distorted cloud images.

Next the kind of a day best suited to the work demands a moment's thought. Clouds must be present in the sky, that goes without saying; but not all days in which the sky is filled with clouds, are suitable for the work. We like best of all a day coming after a rainy spell, when the sky is washed clean and filled with slowly moving masses of *cumuli* clouds, the most generally useful of all cloud forms. On such a day we sally forth, camera in hand, sure of bringing back a number of good cloud studies, to be used when our season's printing begins. For plates we prefer a slow brand, ranging between fifteen and twenty, and we use a moderately quick shutter with a medium stop. For sunset effects orthochromatic plates and a yellow light-screen should be used, but we have not found their use at other times of any particular advantage. In regard to the lighting of the clouds, we regard it as a matter of choice, provided only that a cloud negative lighted from the right be not used to print in a landscape lighted from the left, and *vice versa*. Unquestionably the most charming cloud studies are made by pointing the lens at a mass of clouds lighted from behind, but, unfortunately, we do not take our landscapes with such a lighting, and can not, therefore, find much use for our beautiful cloud negatives taken in this way, which is useful for the production of the so-called moonlight effects. A side illumination will be found the most generally useful.

Having made the exposures, the next step is to develop them. Here many fail by making their negatives too dense. All that is necessary is to bring out the details with sufficient density to print lightly. A heavy sky is almost worse than no sky at all. Besides it will be found difficult to print in clouds from dense negatives. We have met with most success when using a developer relatively weak in pyro, and when the details are well out, and development nearly completed, adding a trifle more pyro to give snap and brilliancy, but never using more than one-half the amount necessary for landscapes. We use fresh developer for each exposure, preferring extravagance in the use of developer to deterioration in the quality of the negatives. In this way we have produced some hundreds of fairly good cloud effects which have done yeoman's service in the printing room.

As an *addendum* to our subject we may say that the best substance we have found for putting artificial skies in negatives with thin skies, is Chinese white, which spreads easily, gives a very opaque coating, and is easily softened down and shaded off to any extent desirable.

Convention Notes.

AS the Boston Convention was our first experience in this line, we naturally looked forward to it with great interest. We spent the entire week at the hall, and we think that we saw about all there was to be seen. We attended the meetings and studied the workings of the Convention, and we came to the conclusion that it is a very good thing for professional photography, and that it would be well for the American amateurs to organize on the same lines. We must confess to a feeling of disappointment at the small number of photographers present, and at the want of anything like an attempt to represent the different stages of photographic progress by instruments, and by pictures made by the different processes. Such a historical museum might fittingly have found a place in a semi-centennial celebration, and would have added interest to the Boston Convention. We did not think that the public attendance was as large as the occasion warranted, but perhaps it was as large as the management cared for.

The display of apparatus was probably finer than that of any previous convention, but the exhibit of pictures fell somewhat below the average on the testimony of veteran members. We should say that while the display of every-day gallery work was particularly good, there were not more than a dozen pictures of exceptional merit. Among these we would place Barker's exhibit of Niagara Falls and Florida views, Roesche's Evangeline pictures, and the bromide prints of Müller of Munich. These were by all odds the finest bromides we have ever seen, and were probably the result of long exposure and slow development with a watery ferrous-oxalate developer. The only two amateurs who sent pictures, Mr. Le Breton of Washington, and Mr. George Woods of Philadelphia, did not have the good fortune to have their pictures hung, not certainly because they did not compare favorably with the work of the professionals, but probably because an overworked committee had to stop some time. Our personal experiences were of the most pleasant. We had the pleasure of meeting many of the veterans, and we enjoyed the fraternal intercourse we held with our brethren of the photographic press. With the single exception of Wilson's, every photographic journal in the country was represented. The tables of the press were grouped together near the entrance, surrounding the exhibit of Benjamin French & Co. With the exception of the AMATEUR PHOTOGRAPHER, all the journals gave away specimens to the visiting photographers. The *Photographic Times* presented its friends with a fine medal commemorative of the semi-centennial. We met Mr. Adams of the *Times*, Mr. Bartlett of the *American Journal*, Mr. Gentile of the *Eye*, Mr. and Mrs. Clark of the *St. Louis Photographer*, and Dr. Elliott of *Anthony's Bulletin*, all of whom gave us a cordial welcome into the fraternity, and spoke kindly words of good

cheer. In company with Mr. Bartlett and Mr. Pancoast, of Waterbury, we inspected the pictures and derived much assistance from their criticisms.

In short, we had a thoroughly enjoyable time, saw many things which were well worth seeing, and came away from the Convention with a firmer belief in the useful future stretching out before photography.

Among the Exhibits.

DURING the Convention we were fond of strolling idly about the lower hall stopping here and there as some notable exhibit caught our notice. To one interested in photography there was very much that was interesting. We propose to take our readers on a leisurely stroll, stopping now and then to glance at some of the more noticeable features of an exhibition which we believe to have surpassed any of its predecessors in quality if not in quantity. Beginning at the entrance and working to the right around the hall, the exhibit of Benjamin French & Co. deserves more than a passing notice. The exhibit occupied a small booth-like structure, tastefully trimmed with bunting so arranged as to show the American and French colors, and included a complete line of Voigtländer & Darlot lenses, of which the firm have the American agency. In addition to the regular line of Voigtländer lenses, the firm showed for the first time the new Wide-Angle Rapid Euryscope, described in our last issue. The specimens of work done with the lense, shown at the same time, leave little room to doubt the value of the new lense for group work in confined situations. The firm also exhibited condensers for lanterns and solar enlargements, and a general line of photographic supplies. On the right, beyond the stairs, was the exhibit of the Boston Camera Company, which included the Boston Reversible Camera and the Hawkeye Detective, both too well known to need extended notice here.

The next exhibit was that of Barker & Starbird of Boston. Here we saw the Bromfield Detective, the "Superb" outfit, and a full line of the firm's new lense called the Eurygraph, a double combination of moderate cost and excellent working quality, as was shown by a frame of specimen prints. The firm also showed an excellent hydroquinone developer called "Our Own," compounded by Mr. Starbird, which has since been tested in our own dark-room to our perfect satisfaction.

Just across the aisle from Barker & Starbird's display, the Blair Camera Company had their headquarters; all of their well-known line of goods were exhibited and together formed a display, which, for beauty of workmanship, completeness, and general utility, was second to none at the exhibition. We were particularly pleased with their latest camera, an improved Compact, which is now made with the double swing back. We saw nothing in the exhibition superior to this box, while for elegance of work-

manship it is surpassed by none of the English cameras. They also displayed a novel pedestal camera stand for amateur portrait work, which, when not in use for the camera, forms an elegant pedestal for a bust or statue, its chaste design and fine finish making an ornamental piece of parlor furniture. We found the easy chair of the office a pleasant lounging place, and Dr. Mitchell, Mr. Blair, and other members of the force "given to hospitality," and we no longer wonder at the popularity of the Company, which has now more orders than it can fill, there being a large English demand for their goods.

C. B. Richards & Co., New York, had a small but attractive exhibit near the Blair Co.'s, consisting mainly of German photographic specialties, including the Schlotterhaus rapid bromide printing machine and sample boxes of Dr. Andresen's new developing agent, Eikonogem. Unfortunately the firm were unable to show any specimens of work done with the new re-agent and we were unable to procure a sample for experiment. They also displayed a large number of prints of animals in motion from negatives by Mr. Ottomar Anschuetz, and the newly invented Tachyscope, an instrument devised by Mr. Anschuetz to supply the deficiencies of the Zoetrope. In this instrument the series of pictures is placed on a circular glass plate, which is rapidly turned on its axis; whenever a picture appears before the eye of the observer it is lit up by an electric spark. The natural motion of the object is reproduced with startling fidelity, every motion being accurately reproduced. Messrs. Richards & Co. deserve the thanks of the Convention for an exhibit which added so much to the attractive features of the exhibition.

Next came the monster exhibit of Messrs. E. & H. T. Anthony, which included specimens of nearly all the articles of their manufacture. Lenses, cameras, albums, lanterns, tripods, these and many other articles made up a display which was bewildering in its variety, and which we do not begin to have space enough to describe in detail. They had a fine display of prints made on the Pizzeghelli Platinum and the Bradfisch Aristotype papers, and a cabinet filled with photographic chemicals put up in tablet form. It will be welcome news to amateurs to know that the firm are now making their plate holders to fit all their higher priced cameras.

The Stanley Dry Plate Company had a large exhibit of prints made from their plates, among which we notice some exceedingly good Maine coast views made by Mr. H. G. Peabody, of Boston, with a Wray lense, of which he is the American agent. Mr. Peabody also had on exhibition a specimen copy of a finely illustrated book, "The Coast of Maine," the result of a summer's work with a camera on the Maine coast.

The next exhibit bore the name of G. Cramer, and one knew at once that it would bear frequent inspection, as indeed why should it not, when the negatives were made on Cramer plates by such masters as McMichael, Decker, Jackson, Stein, Guerin, and others.

Mr. Cramer has recently fitted up a factory for the manufacture of orthochromatic plates according to the formulæ of M. Boissonnas, late of Geneva, Switzerland, but now with the Cramer Co. The examples of the work done with these plates, which were shown in the Cramer exhibit, should convince the most skeptical of the value of the orthochromatic plates. The exhibit of Mr. George Murphy of New York, while containing no striking novelties, was filled with reliable goods. We notice particularly the new Barnett Film Carriers, which are simple and effective, the new Green shutter, and a new steam heated burnisher called the Boss, which struck us as particularly good.

J. W. Bryant showed a full line of his popular accessories, which attracted much attention.

The display of card stock made by the Collins Company bore ample testimony to the ability of the firm to supply the demands of the most exacting. The new designs were extremely pleasing.

When we say that Mr. John Carbutt's exhibit was worthy of his reputation, we are well within the truth. A large collection of fine prints left little doubt of the good qualities of the Carbutt plates and negative films, which are now coming into general use and which are remarkably free from many of the defects commonly attributed to films. Mr. Carbutt also exhibited his new positive film, both tinted and plain, with ground glass effect. The latter pleased us much on account of the soft and chaste effects it gives. The other well-known Carbutt specialties were represented, not omitting orthochromatic plates, whose capabilities were shown by an interesting series of views.

The next exhibit was that of Morris Earle & Co., Philadelphia, whose specialties are the Beck lenses and cameras, and the Pine flash lamp. A large collection of prints spoke eloquently in favor of both these aids to photography. Here we found the new opal glass graduates which struck us as being superior in many ways to the older style. Mr. Earle also showed us the new Beck Stereoscopic Detective camera, a finely finished and expensive instrument.

Mr. Gilbert, Jamestown, N. Y., exhibited a frame of Aristotype prints which were remarkably good. Mr. Gilbert deserves credit for being the first to devise a practical method of making the preparation of the paper practicable in small galleries and for amateurs. He supplies an outfit consisting of coating frames, chemicals, and full directions which enables any careful workman to prepare his own paper.

The Schultze Photo Equipment Co., New York, had a large display of amateur goods including their T. L. S. lense, which seems capable of doing fine work.

Packard Bros., of Roslindale, Mass., had a fine exhibit of backgrounds and accessories. We understand that they are shortly to put on the market

a line of backgrounds especially suited to amateur portraiture. They also make an excellent quality of ferro-prussiate paper.

The M. A. Seed Dry Plate Co. had a magnificent exhibit of prints on their new positive films, which they are now about ready to place on the market. The exhibit included a large number of portraits and views on white and tinted celluloid artistically mounted on fancy celluloid plaques. We liked the plain white better than the tinted, and were greatly taken with the beauty of these film pictures.

The Wilson-Hood-Cheyney Co., of Philadelphia, had a small exhibit, mostly of Osborne's accessories; they also had the "Perfect Mountant," and a few other specialties.

C. H. Codman & Co., Boston, exhibited a large line of cameras and other photographic goods, but we did not notice any novelties. We understand that the firm purchased the entire exhibit of the Scovill & Adams Co., so that they will be well prepared to fill orders for these reliable goods promptly.

One of the largest exhibits was that of the Scovill & Adams Co., which included a full line of their cameras and other specialties. We have no space to do justice to the exhibit, but we must specify the Albion cameras, the new magazine cameras, the Waterbury & Scovill Detectives, and the improved three and five wick optical lanterns which the Company have just put on the market at moderate prices. The Company were awarded the Association medal, for improvements in apparatus. There were twenty competitors.

An attractive feature of the Scovill exhibit was the display of lenses of the Gundlach Optical Co., Rochester, N. Y. These favorite lenses are now made in fifty different styles, portrait, rapid rectilinear, and wide-angle. The Gundlach Co. presented their friends with a beautiful souvenir in the shape of a tastefully bound collection of photogravures from negatives made with their lenses.

Next to the Scovill exhibit we found that of Mr. Entrekin, comprising burnishers of all styles and prices and his new washing tank, which has every appearance of being a very efficient machine. Both the Acme Co., of Syracuse, and Smith & Pattison, of Chicago, had large exhibits of their burnishers, the newer patterns presenting many novel features. Smith & Pattison exhibited other novelties, such as paper cutting machines, etc. Randall & Co., of Cincinnati, exhibited their new low-priced burnisher, which seems to be well suited for the use of amateurs who, as a rule, do not care to pay a fancy price for a burnisher.

The Bausch & Lomb Optical Co., Rochester, N. Y., had a fine display of their lenses and shutters, together with specimens of work done with them. Among the latter were two of the best enlargements we have ever seen, much better in every way than anything we saw among those entered in competition

for the Eastman prize. We were greatly interested in the new Alvan G. Clark lense, the invention of the celebrated manufacturer of astronomical objectives. The construction of this lense is a radical departure from existing types. Although of the rapid-rectilinear type it covers a very wide angle, works with full aperture, and is remarkably free from spherical aberration. The lenses of the combinations are not cemented together, but each lense is mounted separately, a method which is said to avoid all danger of gradual loss of speed. As all these lenses work with stop F.7.5 they are well suited to instantaneous and flash-light work.

Our turn around the hall has brought us to the exhibit of the Eastman Co. just in front of the entrance. It goes without saying that the exhibit of the Company, which has given to the photographic world the paper negative, stripping films, bromide and transferotype paper, the Kodak, and which now promises a flexible, transparent film which can be used in a roll-holder, attracted much notice. The Kodak was there, many of them, but it has grown, and we now have Kodaks in various sizes, the original $2\frac{5}{8}$ in.; one $3\frac{1}{4}$ in.; one quarter-plate size, and one 4 x 5; also a new style of detective box which will be found described in our article on "Detectives at the Exhibition." The new flexible transparent film was also shown and attracted much favorable notice. There seems but little doubt that most, if not all the difficulties have been overcome, and that the new departure will be widely adopted. The bromide enlargements, which formed the background of the exhibit, were extremely good, and it may safely be said that the Eastman display was one of the most attractive features of the exhibition.

In the exhibit of Mr. G. Gennert, New York, we found some interesting novelties, of which we mention the "Prize View" reversible back camera, a neat and serviceable viewing box, and the "Mohawk" detective camera, which seemed to us to embody some valuable features. The G. G. shutter, a combination of flap doors and a drop shutter was a decided novelty, and we were pleased to learn that the sales of Byk's hydroquinone and pyro, of which Mr. Gennert is agent, are steadily increasing, as we know from our own experience that these are reliable goods.

The exhibit of Mr. J. A. Knorr, New York, comprised a large assortment of card mounts of German manufacture. A striking feature of these mounts was their high enamel and the originality of the designs used in the lithographic decorations. A line of Papier Mache trays was also shown, which are guaranteed to be impervious to the action of photographic chemicals, and which are remarkably light and durable. We noticed also other European novelties which we have not space to describe.

Another interesting small exhibit was that of the new Low shutter, made by the Kalamazoo Shutter Co., Michigan. The shutter, which is somewhat similar to the Green, is simple and, we should say, effective. Its moderate

price should commend it to those whose shutter work is too slight to warrant the purchase of the more expensive varieties.

S. Wing & Co., Charlestown, Mass., exhibited the camera described in our last issue, and a careful examination of it convinced us of its originality, but we would not care to pass an opinion on its practical value until we had tested it in the field.

We have thus briefly sketched the leading features of the manufactures' and dealers' exhibit, holding that our position as an amateur journal absolved us from the duty of noticing such exhibits as were of interest only to the professional. We have set nothing down that we did not see, and if we have omitted anything it has not been of malice aforethought, and we shall be most happy to supply the omission if our attention is called to it. Other features of the Convention will be found discussed in other parts of this issue. W. H. B.

The Study of Interiors.

SCIENCE plus Art equals Photography, is an equation needing no demonstration to those who love the last named well enough to labor faithfully in gaining for it ever-increasing honor. In no branch of the Art-Science is study more needed than in that of Interiors.

It is absolutely necessary, to begin with, to have good plates, a good camera, and the best wide-angle lens to be procured. Of course many tolerably good pictures can be made with cheaper materials, but no one who has once seen the results of careful work with a fine instrument can ever be satisfied with the dense shadows, cloudy lights, and out-of-focus appearance of the ordinary interior. From the very first day I set up my camera this work attracted me, possibly from my having studied painting interiors and from the fact that my home offered exceptional advantages. There are no buildings near it and light enters on all four sides, while the house, being large, allows many rooms to open into each other, thus creating the vistas so much to be desired.

As usual, I began this work with my view lens, an 8 x 10 Ross Rapid Symmetrical, which proved altogether too long focus and was laid aside for, first, a Morrison and then Dallmeyer wide-angle. This last cuts 10 x 12, as I wished to be sure of perfectly clear corners. Smaller lenses cannot do full justice to handsome rooms. It is better to use a tripod than a stand with this lens, and, indeed, I had to have my camera bed arranged to suit both long and short focus lenses, or run the risk of having it intrude in the picture. I usually focus with full opening and stop down only so far as will enable me to see the intended picture clearly on the ground-glass. I do not believe in stopping down until hardly anything can be seen and then giving a long exposure, as the former method gives me soft lights and clear shadows, while the latter gives dense shadows and too brilliant lights.

The plates used ordinarily should not be rapid ones, though I prefer them for very dark rooms, and usually like the Seed or Stanley plates. And, just here, I would like to say that if plate-makers would abolish the use of separators it would be a great gain. Mr. F. C. Beach's plan for packing plates is an immense improvement on the old way, as I have learned from experience.

There can be no fixed rule for timing interiors, but my usual limits are from fifteen minutes to an hour and a half, rarely exceeding the latter time.

Of course I am continually asked to take rooms where it is simply impossible to make a good picture, and the usual comment on my remark to that effect is to "try and see what will be the result." In other cases I have waited weeks for just the right light, and twice the coveted opportunity came as I was starting for a train. It is needless to say that it was but a few moments' work to throw off my wraps, set up the camera, take the picture, and lay the plate away for future development. In both cases the result well repaid me. It takes me some time to properly arrange a room for having its picture taken, without destroying its general character. Rooms, like people, can be so altered as to destroy all interest in them. Very slight changes make a world of difference in the result, and there is sometimes infinite scope for taste in this respect. Too often the light is poor or comes from the wrong direction, and one must remember the rule to avoid having light face the camera. If sufficient can come from behind or at the sides it is often possible to cover the windows for the exposure and uncover them for a second or two when that is finished. I have gone directly in front of the uncapped lens to do this, besides passing between curtains, and no impression of the act appeared on the plate, but it was done quickly and quietly. Various plans have been proposed to prevent halation, but the wisest one is to avoid facing the light.

The accusation of using a spirit-level led me, several times, to put one on the camera after focusing, but the lines always proved straight. No one who has not an accurate eye for form and measurement will succeed with interiors unless willing to depend on a spirit-level. As to position, it is not my custom to photograph a room square front unless obliged to do so, for the view is much more artistic if taken at an angle. The arrangement of the furniture must also be studied, so as to prevent large pieces being near the camera, interfering with each other, or presenting themselves at an ungraceful angle. If orthochromatic plates are not used, it is very important to study the color-values, dark objects being brought into the light and the light ones placed in shadow. People, generally, do not realize the labor thus required, and call you "fussy" when you take half an hour or so for getting ready, another long time for exposure, and then an indefinite time in the dark-room. It is, at times, a question with me whether or no it is best to spend so much labor of mind and body on work that is only appreciated

by a limited audience, but thoroughly good work must too often be its own reward. The scant praise of the expert few is, after all, better than the unthinking commendation of the general public.

But, allowing the picture to have been taken, we come to the no less important operation of development. While not open to the difficulties of instantaneous work, it yet requires much care. For a long time I used the Moreno developer, getting excellent results, but it discolors quickly, stains everything it touches, and, when old, works too intensely, and this makes it very expensive in the long run. Then, in common with many others, I tried hydrochinon, but that worked too slowly, and interiors do not seem to bear prolonged development without fogging the shadows. I have finally fallen back on two developers, pyro and soda, or pyro and ammonia, whichever happens to be prepared, and I prefer making my own solutions. Ammonia gives much brilliancy, but I use soda for portraits. It is safest to begin with a weak solution, adding pyro as needed, but no bromide, and a well-timed negative is developed very quickly. In a recently published formula I noticed the important ingredient of "brains," and it should be kept constantly on hand, for the longer one works the more strongly will this truth be impressed on the mind. I have made it a habit to study every picture I make to see where it can be improved, and never admitting that it requires none.

A gentleman once told me that after two years' work he did not do so well as at first. This should be impossible to a faithful camerist, and betrays great lack of interest or ability. To be sure, I retain some negatives for their very badness to be compared with later work, and the conclusion drawn is that if improvement is apparent it should be constantly increased. "Do not go backward," Mr. T. C. Roche once told me, and in photography, as in other pursuits of life, not to go forward is to slip backward. One cannot stop in mental progress, as on the railroad up Mt. Washington or the Righi. One should read everything on the subject in the regular photographic magazines and chance articles, besides consulting every authority, professional or amateur, it is possible to reach and then go to work on one's own feet, not trying to pick at once all the fruit on the tree of knowledge, but assimilating only what is positively helpful. There is no lack of good landscapes among amateurs but a sad one of good interiors and portraits. Each branch has its own special difficulties, but each is splendid training for the eye and brain, and the horizon of enjoyment seems to constantly widen with increased progress in the work. Not being subject to many of the disadvantages of landscape work, interiors make especially suitable work for ladies, but there are no chances about it. No touching a spring, guessing at the focus, or using any flash-light ever made will take the place of conscientious, steady, and trained artistic perception, aided by the light which nothing can supplant,—the light of the sun.

CATHARINE WEED BARNES.

Detectives at the Convention.

AS we attended the Convention more as a spectator in search of something new than as an exhibitor, we spent most of our time strolling about the halls with our eyes open. Knowing the lively interest now felt in so-called detective cameras, and recognizing our duty to give our readers timely notice of improvements and novelties in this, as in other classes of photographic work, we made a study of all the "Detectives" shown at the Convention. The result of that study we propose to give our readers in the shape of a few descriptive notes, with the hope that they may be thereby aided in the selection of an instrument for their own snap-shots.

We first notice the well-known "Hawkeye," made by the Boston Camera Company. The body of the camera is a substantial wooden box, which is polished on the outside when it is not to be covered with leather. It is made only in the 4 x 5 size, as that seems to be the favorite size for detective work. The lens is a single combination, made specially for the camera, and it is certainly capable of doing good work. The view is focused by a milled head screw at the back of the box, the indicator being within easy view on top. The shutter is simple and effective, and its speed can be regulated as desired. A decidedly valuable feature is a light shut-off actuated by a lever projecting through the top of the box. This makes it possible to carry the camera about with the slide of the holder drawn without the fear of an accidental jar setting the shutter off and spoiling the plate. The camera is made for plates or the roll-holder, and is furnished in plain wood or covered with leather at prices running from $15.00 to $25.00. We believe that the $15.00 box is the best value for the money now in the market. A higher price Detective is the "Midget," devised and sold by Mr. H. G. Peabody, Boston, Mass. This is a morocco leather-covered box fitted with a Wray rapid doublet and a Prosch Triplex shutter. Focusing is done by a milled head screw on the side having a bank lock arrangement, and provided with a graduated distance scale. The turning of the screw racks the lens in or out. The exposure trigger being immediately in front of the focusing screw, the camera can be focused and the exposure made almost at the same time. For time work the camera is set on the tripod and focused from the back on a ground glass screen. In this case the usual tube and bulb attachment of the Prosch shutter can be used. The plate holder is inserted through an opening at one side, the slide is drawn out and placed behind the holder, the opening closed with a leather flap, and the exposure made. The two finders are recessed, which enable the image to be distinctly seen, even when the sun is shining directly on the box. The size of the 4 x 5 box is about 8 x 5 x 4 inches, and the price, fitted as above described, is $60.00; camera alone, $25.00. We think the box a good one.

Mr. G. Gennert's new "Mohawk" Detective seems likely to have a large

sale when its merits become known. At present it is made in the 4 x 5 size only. It is covered with Turkish morocco, and fitted with a rapid wide-angle lens with an improved shutter. The focusing attachment is at the side, provided with a graduated distance scale: it can also be focused from the back for time work. The shutter is of the rotary type, and is arranged for both instantaneous and time work. The speed is regulated by a lever at the bottom of the box. The release triggers are on the top within easy reach, and are double, one being used alone for instantaneous work, and both together for time exposures. As they are of the hair-trigger variety there is little danger of jarring the camera when making the exposure. The holders are inserted through a door at the side. The price of the box with three holders is $25.00.

Barker & Starbird are having good success with their Bromfield Detective, a 4 x 5 leather covered box fitted with a Eurygraph lens with a four-leaved shutter. The camera has two finders and two right-angled levels. The set spring, release, and focusing lever are all underneath the box. Inside are compartments for the diaphragms and lens hood and ample room for six double holders. It is fitted with three light weight Scovill holders, and the price is $50.00.

Morris Earle & Co., Philadelphia, showed a decided novelty in the Beck Stereoscopic Detective, which is made throughout in the most thorough manner. The box is leather covered and is fitted with a matched pair of Beck lenses with a double shutter. The lenses are fitted with iris diaphragms which can be manipulated by a lever on the bottom of the box. The focusing and speed regulating attachments are very ingenious, and the box is well worth the $130.00 asked for it.

In addition to the Scovill and Waterbury Detectives, which are too well known to need description, the Scovill & Adams Co. exhibited two magazine cameras of novel construction. The "Price" Magazine camera carries twenty-four films in as many metal holders. A cover provided with a bellows and an ingenious grip attachment lifts the exposed film from its place, drops it into the storage magazine, and at the same time sets the shutter. As soon as a film is removed from the exposure frame a strong spring forces a fresh one into place. There is the usual focusing arrangement on the bottom, and the camera is fitted with a Wale lens. The other camera, which is not yet perfected, is provided with a long hook projecting through the back by means of which the exposed films are pulled into the storage magazine. The price of the "Price" camera is $50.00 and it is the best attempt we have seen to solve the difficulty of a magazine camera.

E. & H. T. Anthony exhibited only their well-known Detective and Lilliput cameras which need no description at our hands.

The Eastman Company, not satisfied with the phenomenal success which the original Kodak has enjoyed, appeared at the Convention with three others of larger size, a three and one-half inch, a quarter plate, and a four by five.

The two latter sizes have finders and circular focusing attachments, and are finished in wood and leather. They are in all respects complete detective cameras, and like the original Kodak are fitted with the roll-holder. But the wonder of all is a new bellows detective box carrying a roll-holder loaded with sufficient film for fifty exposures. The 5 x 7 size is 5 x 5½ x 7½ inches, and weighs about 1½ pounds. When closed the quiet looking leather-covered box resembles a surgical instrument case, with no outward indications of its true character. Pressing a knob allows the front to drop down into place. The lens is pulled out for focusing on two brass ways, accurately graduated for distances ranging from five to one hundred feet. The lens is a rapid rectilinear and is fitted with a new shutter. The lens board has both the vertical and the horizontal movement, and is locked in focus by an ingenious clamping arrangement. The box will be made in various sizes from 4 x 5 up, and will be finished in leather or wood, and, taken altogether, it is a wonderful box for the users of Eastman's films.

From the above notes it will be seen that those who came to the Convention in search of detective cameras had no reason for disappointment, and he who could not select a detective from the variety shown must needs make one for himself. The only snap-shot box of any note not exhibited was, we believe, Dr. Higgins's.

The Vest camera, although not in the exhibition, was brought to the Convention by Mr. C. P. Stirn, of New York, who has greatly improved it. It is now furnished in a polished, plush-lined case which can be fastened to a tripod for time exposures. The shutter is both time and instantaneous, and the camera would now seem to be as complete as ingenuity can make it. A decided novelty in connection with this camera is the self-developing plates which Mr. Stirn now furnishes with it. These plates develop by simple immersion in water, and we have found them to be of excellent quality.

W. H. B.

Chapters for Beginners.

THE next step is to learn the use of the shifting front and the swing-back. The use of the former is to allow the lens to be moved up and down to regulate the amount of sky and foreground to be included within the picture. The swing-back makes it possible to tilt the camera to include the top of a high building, etc., without causing the lines to converge. When the camera is tilted, the ground glass must be brought to a vertical position by means of the swing-back. In landscape work the swing-back plays an important part, since by swinging the top out, the foreground can be brought into sharp focus with the middle and far distances. An indistinct or hazy foreground is always to be avoided. When the beginner has perfected himself in all these preliminary details he is ready for field work.

But before entering upon this part of our subject we must say a few words about the dark-room. As a rule, the tyro contents himself with an available closet, where he is stifled in summer and frozen in winter, and where at no time has he room enough to make good work easy and certain. Perhaps it would not be going too far to say that the dark-room should be constructed before the outfit is purchased. It should not be less than 8 x 10 feet, and it must be absolutely light-tight, and provided with some means of ventilation. Entrance should be had, if possible, through two doors. A sink, water supply, shelves, and a light-tight closet for the storage of plates will form the interior fittings. The lighting may be arranged to suit the taste and convenience of the owner. We prefer to have the source of light outside the room, cutting a square opening in the wall, closed by three sliding frames carrying respectively sheets of ground, yellow, and ruby glass.

Racks should be arranged beneath the sink to hold the trays when not in use. Each tray should be labeled and kept to its own use.

The developing solutions, graduates, and other articles used in developing should be kept on shelves within easy reach. Stock solutions may be kept on the top shelves.

If the room is large enough a small table will be found a great convenience. On a shelf, at one end of the sink, should be kept the fixing bath, and no other chemicals should be kept in its vicinity. The sink should be at least 18x30 inches, and, if possible, it should be a porcelain-lined one, although a wooden one lined with lead or copper will answer. The writer has seen in England a developing sink which was all that could be desired, but it is not obtainable in this country. A good waste pipe should be provided, and a plain tap and a swinging rose tap will make an efficient water supply apparatus.

Provided with a dark-room of this description, the amateur is well prepared to begin his study of photography. If he has not such an one, let him take the best he has and therewith be content, until the kindly gods send him a better. After nightfall the household kitchen may be pressed into the service, if Bridget have not too numerous and frequent callers, and does not object to a mess.

We will now fill our plate holders preparatory to a trip along the country-side in search of the picturesque. Taking into the dark-room our double holders, of which we purchased six with the outfit, and a box of plates, we open the box, and taking out a plate we dust it carefully with a soft brush; we place it in the holder with its film side, easily distinguished by its mat surface, next the slide of the holder. Each holder is thus filled in turn, and we are ready for our first outing with the camera.

AN OLD HAND.

(To be continued.)

Her Anchor to Windward.

BY MISS ADELAIDE SKEEL.

(*Concluded.*)

"You adopted him?"

"Yes, I adopted him."

"Why, tell me, have you, too, a story like mine?"

Miss Coffin hesitated. We all have stories of one kind or another, but hers was of the colorless kind, not easily told in words. The middle-aged heart is not generally considered as interesting as the young heart; hence, perhaps, it is well that exposures of it are usually short or fogged.

"I have no story," she answered presently, "I was alone and had means, so I took a child from the White House."

"From the White House!" repeated Mrs. Paradise, not knowing the island almshouse bore this Washington title.

"From the White House, when he was a baby."

"Why did you give him such a funny name?"

"He is island born, and that is what we call a 'scrap,' here."

"Has he a mother?"

"She is dead."

"A father?"

"He was a worthless sailor, out of port before the child was born."

"Then Scrap is free from all incumbrances, and in taking him I need have no fear of a troublesome family. He will be mine, all mine."

"Madam, he is mine, and will be all mine," interrupted the hostess, thinking the soft widow was reading her title to another's property a trifle too clearly.

"But you won't be so selfish," begged Mrs. Paradise, slipping off the horse-hair sofa down on her knees before her. "I can give him so much—advantages you never dream of here—schools, colleges, travels. I am rich, and I am young. You do not know how I have suffered. You are cruel to make me suffer more. Rob and I planned every year of our Lollo's life, and Scrap shall have his chances. I have so many long, lonely days ahead of me, while you are nearly through. Pity me, pity me, and give me the child!" She was in floods of ready tears now, her yellow head was in Maria Coffin's lap, her ringed hands were clasped over Maria's hard, thin ones, and yet her words ran on. "You don't know how my heart aches; you can't know, for you never lost a child. You are not a childless mother, like poor me. You have never known what it is to be a mother. God never made you a mother as He did me."

"No, I made myself a mother," was the grim answer, which at a less critical moment would have sounded like mockery, but now seemed Sunday seriousness indeed.

There was a sound of pattering feet in the hall, and presently a piping treble voice: "Mother, I've been to market; can I go to see the black lady now? She said she wanted to take me if the sun shone, and it is shining ever so bright. Can I go, mother?" A little figure peeped in the doorway and the crisis came.

"Choose, choose, Scrap, choose between us!" cried Angel Paradise, in whose mind some dim memories of "Anna Ross'" history stirred.

"Do not come in the parlor in your rubber boots, Scrap," said Miss Coffin sternly, glad to be relieved for an instant of the pressure brought to bear on her. The lad suddenly betook himself to the lace-arbor, where he unburdened his soul to Pug.

"I think mother's cross, and I won't be the black lady's boy. No, I won't be her Lollo, he's dead, and I won't be him, not if she tooked me in blue a hundred times more. I guess I will run away to sea." He looked defiantly at the closed parlor blinds, as if he knew that a discussion about him was waging within. Presently Mrs. Paradise, worsted in the fray, but not disheartened, came softly out into the garden, said a friendly word to the boy, and disappeared down the shady street.

"Will you take me again to-day?" shouted Scrap.

"Yes, I will take you and keep you," she answered back above the hollyhock hedge, careless if the echo of her words should reach Old Hundred's mistress.

That night Miss Coffin walked her house-top piazza in anxious thought. She had conquered the widow, yet a remembrance of her evening's words rankled. Mrs. Paradise had spoken of chances for Scrap, of opportunities; she had told her that she was not a real mother, that she did not know what was best for a boy. She had hinted more than this, and suddenly the older woman's eyes opened to the narrowness of her life. She had grown up on the island to think herself better than the common villagers, and yet here was a stranger from the mainland who boldly called her forty fat years forty lean years of famine. Was she starving Scrap? Can people be hungry and not know it? In her suddenly awakened imagination she seemed to be chaining the boy as if he had been her slave. She did not understand any other life, she was too old to begin to learn, but the lad, cost her what it might, should be free. She came down from the house-top with her mind made up, and before she slept a decisive note was written, but when she crept into bed and lay down by her darling's side, the sacrifice seemed too great for her strength. More than once was she obliged to remind herself of the larger life which would be his when he left her, and buoyed by the thought, she let the written promise stand. In the morning things looked different. Scrap was fretful and disobedient, asking twice as many troublesome questions as usual, and in a hundred hitherto unnoticed ways showing himself a spoiled child. Again Miss Coffin hesitated, again she reasoned

the whole subject out in her mind. God had not meant her to be a mother, yet she knew herself to be a born disciplinarian. What sort of training would the lad receive at the hands of this frivolous widow? Did she know how to do anything seriously, or was all her time passed leading about pug dogs and taking blue photographs? Would she make Scrap God-fearing and self-respecting? Would she do aught but look at him, pet, and take his picture? Rousing from this dismal forecasting, she bade the boy take the fateful note to Mrs. Paradise, charging him to return home again as soon as he had delivered it.

"She wants to do me a new way, mother; mayn't I stop just a tiny minute. It's only *click*, and I'm tooken. I won't stay to see her wash the glass. It smells bad in the dark, and I don't like it. Just let me be tooken once, please," he pleaded.

"Return home at once," repeated Miss Coffin sternly, but the sternness died out of face and voice as she watched the unconscious little messenger hurry out of sight with the fateful letter. Suddenly, in a turn of the path, she saw him stop to speak with a slouching sailor, and then in another second he was back again, bringing the strange man with him. Scrap was everybody's favorite, but it was seldom any of his cronies dared penetrate within Old Hundred's garden walls. Behind the boy and man came Mrs. Paradise, leading her pug and carrying her camera. While she hid herself in the lace-flower arbor to take a furtive shot at Maria Coffin herself, the little messenger, still holding the note, shouted, "Mother, I've come back, for I didn't go! Such a funny thing happened at the gate—a s'prise, only guess. This man is my own real papa. He says my mamma's dead, and that you are only a make-believe mother."

Poor Maria Coffin! In another moment the slouching sailor straightened himself out, and with the boy clinging to his tattoed wrists, said, half defiantly, half apologetically: "Yes, ma'am, he's mine and I can prove it. I was sadly currented when I left the old woman to die alone in the White House, and I never heard of this sonny here till I was coming back from my last voyage. A mate of mine told me how you had raised him, and I thank you hearty. He's a bit peaked, but the sea breezes will put new blood in him. He'll be a bold sailor, if his daddy has come near shipwreck."

"Will you take him from me?" asked the despairing woman, while her cry was echoed by Mrs. Paradise—

"From me, too?"

The man looked from one to the other in perplexity, not the first of his sex surely who has been baffled by the conflicting claims of two women, when he wanted nothing from either.

"Be there two of you who owns my boy?" he said, slowly.

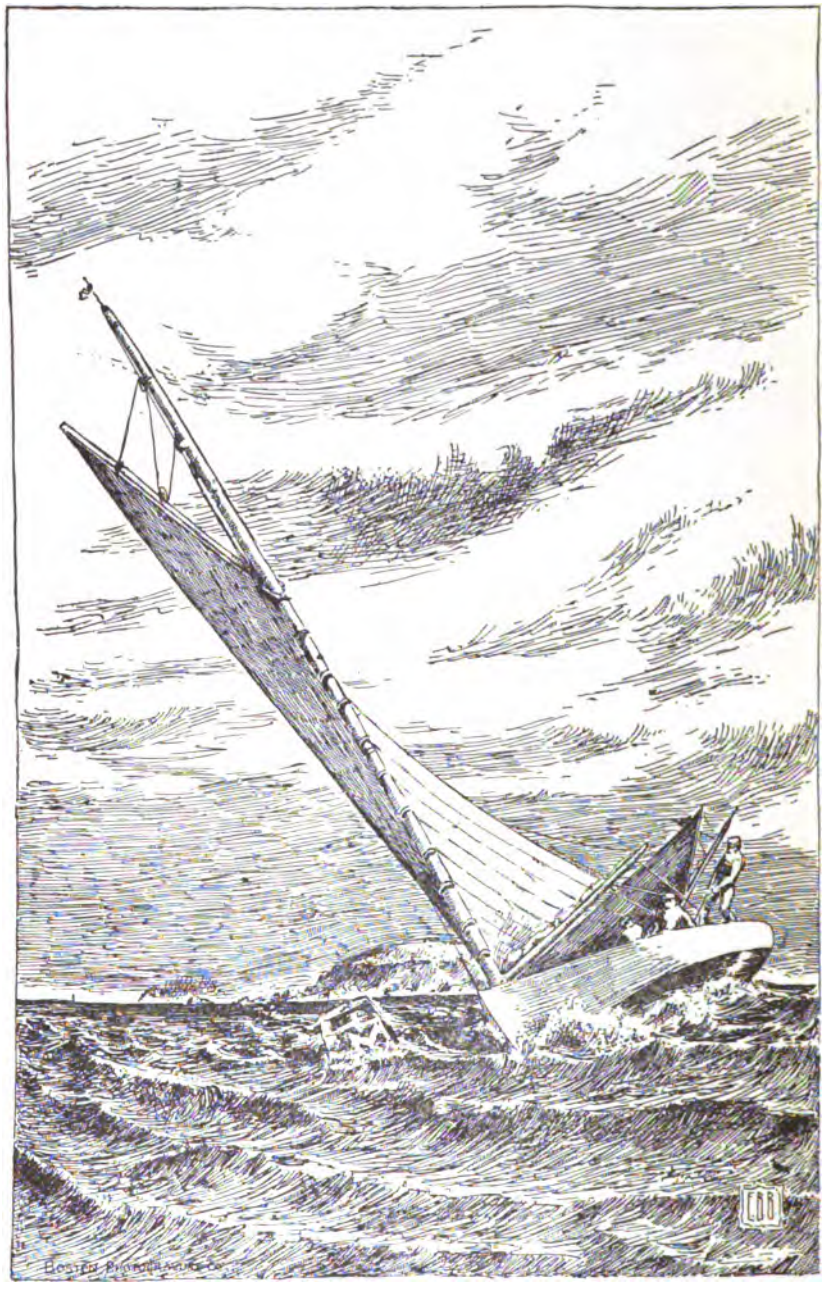
"I do not own him," answered Miss Coffin, "take him and go."

"I have nothing else in the world," said the widow.

Scrap's papa looked a second time at beautiful Angel Paradise, then without waiting for her ready story of the resemblance to Lollo, he replied: "I'm sorry for you, mum—for the chap is my own flesh and blood. I shall founder if I don't take him, for ever since my mate spoke his name he's been my anchor to windward."

Maria Coffin, asking no sympathy from her neighbors, went on living out her quiet life in Old Hundred without her adopted boy, while Mrs. Paradise returned to New York to tell every chance caller of her great disappointment. At first, views of Scrap filled half her album, and even after his negatives began to grow yellow she told people in her newly-acquired nautical slang: "My camera is my anchor to windward, you know."

"A light weight would anchor Angel Paradise," one friend said to another when the hostess' back was turned, then added apologetically, still studying the blues, "but I've nothing against photography, you understand."



"ALL HANDS TO WIND'RD."

THE

AMERICAN AMATEUR PHOTOGRAPHER.

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EDITORIAL COMMENT.

The *Boston Sunday Herald* of August 4th contains about the best review of the first fifty years of photography that we have seen. The *Herald's* photographic department is in charge of Mr. W. G. Chase, whose enthusiasm for photography, and newspaper experience, enable him to make the *Herald's* photographic column one of the best in daily journalism.

One of the pleasantest features in connection with the Boston Convention were the evening receptions of Mr. and Mrs. Benjamin French, at their residence, No. 10 Newbury Street, Boston. At the opening reception, held on Tuesday evening, more than two hundred guests were present, who were made comfortable and happy by the untiring efforts of Mr. Wilfred A. French. The remaining receptions were also well attended, and we are sure that the guests carried away with them pleasant memories of the kindly hospitalities of a genuine Boston home.

Eikonogen.—This new developing agent was discovered in the early part of this year by Dr. Andresen, of Berlin. It is one of the numerous analine compounds, occurring as a white crystallized powder, which, when dissolved in water and sulphite of soda, is said not to discolor. It is claimed that the new reagent is a more powerful reducer than hydro or pyro, giving negatives of a bluish-black color, and rich in fine details. The mixed developer is said to keep well, and the agents claim that it will bring out more detail in an instantaneous exposure than any other developer. As we have had no opportunity of testing these claims, we merely give them on the authority of the American agents. The formulæ for the developer will be found under "Useful Hints."

We wish to remind our friends once more of the material assistance they can render us by sending us the names of friends who would be likely to become subscribers, and by

recommending the magazine to their friends. We have the best of reasons for knowing that our first issues have made us many friends, many of whom have supplemented their own subscription with those of others. If we thought it necessary we could fill several pages of the magazine with the words of encouragment we have received, but we deem this unnecessary, and content ourselves with asking our readers to bring the magazine to the attention of others.

We congratulate ourselves and our readers on the pleasant fact that the AMERICAN AMATEUR PHOTOGRAPHER has secured so able an English correspondent as Dr. Emerson, who is well known as the author of "Naturalistic Photography," and the publisher of several magnificently illustrated works on English life and scenery. Dr. Emerson's first communication appears in this number, and we shall publish monthly letters from the same source. In pursuance of our aim to make the magazine indispensable to all amateurs, we shall increase our list of foreign correspondents as rapidly as possible, and we hope that our willingness to give the best, and only the best, will be appreciated.

In our next number we expect to begin the publication of a series of articles on "Photo-Micrography," from the pen of the Rev. F. T. Hazleton, of Lynn, Mass. Mr. Hazleton is an expert photo-micrographist of long experience, and this series will be invaluable to all workers with the microscope and camera. It will include minute directions for the preparation of specimens for photo-micrographic work, discussion of methods, and the making and coloring of slides. We predict an instant success for this series, and we advise intending subscribers to send in their subscriptions at once, as we do not publish unlimited editions.

The *St. Louis and Canadian Photographer*, in an appreciative notice of our first number, takes us somewhat to task for copyrighting our journal. In our own defense we wish to say that this is done solely for the protection of those who kindly allow us to use their negatives for our illustrations. The owner of a valuable negative does not usually care to make it public property, and we would not feel at liberty to ask for a negative unless we had taken every possible means to protect its owner against piracy. Another reason for our action is that we pay for our serial contributions, and take this method of protecting our undoubted rights in property which we have paid for. This much it seemed necessary to say in order to escape the imputation of selfishness, and we gladly give our friends the privilege of quoting us *ad libitum*.

This number is largely a Convention number, but we trust that our readers will not complain of it on that account. We have aimed to treat the subject from the standpoint of an amateur visitor, and to mention everything that would be likely to interest an intelligent amateur.

At the Boston Convention we had the pleasure of meeting Mr. C. P. Stirn, of New York, who showed us the Panoramic Camera which he has been working on for some time. The camera is in the form of an upright box of small dimensions; it is fitted with a Gray lens, and uses the Eastman film mounted on rollers, which are driven by a large cog-wheel which rotates the camera completely round a circle, thus taking a picture of the whole horizon. The exposure is made through a narrow slit immediately in front of the film. As soon as the camera is perfected it will be placed on the market at a price much below that at which any other similar box has been sold.

We invite our readers to send us bits of personal experience for the benefit of other workers. In photography as in everything else *experientia docet*, and a bit of experience which may seem of little moment may be of great value to others. Send on your experiences, and help to start an "Experience Column."

We have received the first number of the *Boston Photographic Review*, a semi-monthly of twelve pages, published by S. Wing & Co., Boston, Mass., and edited by J. O. Moerch, author of a hand-book of photo-mechanical printing processes. The new magazine starts out well, and we wish it all success. The subscription price is $1.50 per annum.

One of the best things the Convention did was to initiate a movement for the erection of a statue to Daguerre. At one of the meetings Mr. J. F. Ryder made a motion, which was unanimously carried, that every photographer in the country be asked to contribute $1.00 to the statue fund. Quite a sum was raised at the meeting, and we have no doubt that there will be a very general response from the professionals. We do not think that the amateurs will wish to be left behind in honoring the memory of the man who, whether the original discoverer or not, is more closely identified with the beginnings of photography than any other man, unless it be Fox Talbot, whom we would like to see similarly honored as the first English worker. We propose to open a subscription list for the amateur photographers, whom we request to send subscriptions to the fund to this office. All such subscriptions will be forwarded to the committee, and duly acknowledged in these columns. We hope that every amateur in the country will contribute something to the fund, remembering that the proposed statue will be in honor, not only of Daguerre, but also of this our "gentle art" of photography. Let the amateur subscription list be large enough to represent the value of photography to every lover of Nature.

Owing to lack of space we are compelled to defer our account of the pictures at the late Convention until our next issue.

With the waning of summer we are reminded of the coming winter evenings, when the optical lantern will enable us to live over again our past triumphs. We shall soon have something to say on the subject of slide making in the near future, and we would be infinitely obliged if some of our readers would send us a description, with drawings, of an efficient home-made lantern. A real satisfactory device for producing the dissolving effect with a single tube is also a crying need, which we would like to fill.

Do not forget our "Prize Tour Competition," particulars of which were given in our last issue.

We take considerable pride in the very exhaustive "Notes on the Philadelphia Exhibition," which is concluded in the present issue. We believe it to be the most complete notice of the exhibition that has been published. It is fitting that the only amateur photo-journal published in the country should devote considerable of its space to a review of the pictures exhibited in the only large amateur exhibition that is held here. We regard it as a model piece of work, and we are sure that it will be appreciated by our friends. We shall be pleased to print equally complete notices of the different club exhibitions, if the secretaries will only forward them to us.

It is our desire to publish in the October number a list of all the club exhibitions projected for the fall and winter months, and we request the secretaries to forward us dates and particulars of the events so far as they have been determined upon.

There are doubtless many amateurs who would like to publish a picture now and then, but who do not see their way clear to do so. We therefore make the announcement that we will gladly bear the expense of printing and binding such pictures in the magazine if the owners of the negatives will pay for the plate and the paper. We will also furnish any desired number of copies unbound at the bare cost of printing. We only reserve to ourselves the right to reject such negatives as are totally unadapted to reproduction. Our engravers inform us that as a rule they prefer a good silver print to a negative to work from. We hope that our friends will bear this offer in mind and take advantage of it. These reproductions will not, of course, take the place of our leading illustration. That we shall ourselves select.

Messrs. E. & H. T. Anthony & Company have favored us with a copy of their Convention souvenir, a small brochure written by "A. H. E." Its title is "A Half Century in Manufacturing Photographic Apparatus and Supplies." It contains a concise history of the firm and is embellished with portraits of Edward Anthony, Henry T. Anthony, William H. Badeau, Richard H. Anthony, Frederick A. Anthony, and two of Col. V. M. Wilcox.

The following list of new articles were exhibited by E. and H. T. Anthony & Co., at the Boston Convention, but were not placed in competition for prizes: Cameras—Normandie Reversible Backs, Front Focus Novelettes, Front Focus Victor, Lilliput, Lilliput Negative Racks, Lilliput Printing Frame, Adjustable Negative Washing Racks, Coe's Negative

Washing Racks, Metal Film Kits, Celluloid Films, Celluloid Negative (View and Portrait), Aristotype Paper, Pizzighelli Paper, Farnham Rubber Trimmers, Economy Rubber Trays, Paper Maché Trays, Bromide Easels, Mize Magnesium Flash Lamps, Allderige Print Register, Allderige Print Mounters, Allderige Adjustable Clips, Phantom Tripods.

The Scovill & Adams Company presented their friends with a handy indexed vest-pocket address book, and Mr. G. Cramer distributed celluloid paper knives bearing the legend "Use this knife to open a package of Cramer Dry Plates," and we have no doubt that most of them will be put to that use.

It is said the months of July and August are very disagreeable for outdoor photography in California, near San Francisco. The wind blows daily with great velocity, so much so that a weight is required to be suspended from the tripod to prevent the camera from being blown over. The dust also is very penetrating and promotive of pin-holes in plates. There is at the present season a thick haze in the atmosphere in that country, due it is thought to the gigantic fires in the woods in the mountains along the coast. The fall, winter, and spring are the clearest seasons for photographic work.

An amateur, prior to departing on a European trip, conceived the idea of notifying his friends in advance of his intended tour by photographic means, which in its way was quite unique. He purchased an instantaneous photograph of the steamer under full headway, then cut out from silver prints the portraits of himself and wife and pasted them on to the steamer photograph in the sky portion just in front of the masts. Underneath the picture was printed in white letters: "Steamer Anchoria, August 3, 1889. Good-bye." The print thus gotten up was copied on a plate, and from this reduced negative, prints in sufficient numbers were posted to all his friends. The story was told in a nut-shell and a very surprising but pleasant memento was left with his friends.

From the Newport Novelty Company, Newport, R. I., we have received a number of Newport views of their own publication which please us greatly. The set includes views of the Old Tower, interiors of Trinity Church, the "Cliff Walk" and "Lovers' Lane," and are all exceptionally well toned. As will be seen by their advertisement, the Company make an exceptionally liberal offer to readers of this magazine.

The Peekskill Camera Club was organized August 21, 1889. Dr. P. H. Mason, President; F. H. Southard, Vice-President; E. M. Hill, Secretary and Treasurer. Membership, 15. Meetings twice a month.

Dr. John Nichols, editor of the *Beacon*, has been conducting a summer school of photography at Lake Bluff, near Chicago. We are pleased to learn that the school was a pronounced success.

We have received an invitation to attend the annual field-day excursion of the Photographic Section of the American Institute, which is to be held at Coney Island on September 3d. We regret that we cannot avail ourselves of the privilege so kindly offered us. In lieu of our presence we extend our thanks for the invitation, and hope that the field-day may be a success in every way.

Awards at the Boston Convention.

PRIZE LIST.

The grand prize for the three best pictures illustrative of Longfellow's "Evangeline" was awarded to the Messrs. Rosch, of St. Louis, of whose work we spoke so favorably in connection with an illustration in *Wilson's Magazine* a few weeks ago.

In class A, gold medals for the four best exhibits in genre photography were awarded to O. P. Scott, Chicago; G. M. Elton, Palmyra, New York; S. L. Stein, Milwaukee; and J. E. & O. J. Rosch, of St. Louis.

In class B, a gold medal was awarded to L. M. Baker & Co., of Columbus, Ohio; silver

medals to J. H. Doen and W. Stuber & Bros., of Louisville; and bronze medals to D. Rad Coover, of Iowa City, Iowa, and A. N. Hardy, of Boston, for collections of portrait photography.

In class C, a gold medal was awarded to George Barker, of Niagara Falls, and a silver medal to W. H. Jackson, of Denver, Colorado, for collection of landscape photography. A silver medal was awarded to Henry G. Peabody, of 53 Boylston Street, Boston, for the best collection of marine views.

A silver medal was awarded to A. L. Bowersox for the best collection of architectural views.

In class D, a silver medal was awarded the Eastman Dry Plate & Film Company, for the six most artistically retouched negatives, and a bronze medal to Theo Heinig.

In class E, a silver medal was awarded the Eastman Company for the best six plain enlargements.

In class F, a silver medal was awarded the same company for the best substitute for glass.

A bronze medal for the best and latest improvement in photographic appliances was awarded to the Scovill & Adams Company, of New York. The gold medal for the best display of foreign photographs was awarded to F. Muller.

The Eastman Dry Plate & Film Company's silver cup for the best enlargements made on their bromide paper was awarded to E. Decker, of Cleveland.

Notes on the Philadelphia Exhibition.

WORK OF THE NEW YORK SOCIETY OF AMATEUR PHOTOGRAPHERS, THE BOSTON CAMERA CLUB, AND OTHER SOCIETIES.

If the interest in exhibitions was as great in proportion as the large membership of the New York Society would indicate it should be, a much better showing would have been made at Philadelphia, than was actually the case. New York will be compelled to bring out a higher order of talent if it is to effect any sort of favorable comparison with the other associations. The work shown was of fair average merit, but did not possess much variety.

Reviewing the exhibits in detail we come first to that of a corresponding member, John L. Stettinius of Cincinnati, Ohio, who had a series of good detective views in one frame, and three other separately-framed landscapes and old mills of excellent merit. One of his most interesting detective pictures was entitled "On Papa's Back." The father was swimming in the water with his little boy perched on his back, clinging by his hands to his father's neck. The likeness of the boy, the action displayed, and the crispness and sparkle in the picture made it exceedingly novel and attractive.

Edward Leaming contributed five frames, mostly containing marine studies of vessels in the Brooklyn navy yard, and of surf. The prints were on plain paper and were splendidly done. His most attractive picture was a platinotype portrait of a Miss Smith, costumed as "Marie Stuart, Queen of Scots." It was excellently posed and very nicely lighted, not over retouched, yet quite soft and agreeable in tone.

Ferdinand Ruppert sent four frames of views in Germany, 6½ x 8½ in size, that were remarkably clear and distinct, showing excellent skill in manipulation. One was a toned blue print, and the others were printed on plain paper. No. 74, "The Ronneburg" (southern Germany), impressed us as being the most artistic.

Another corresponding member of the society, Prof. Henry A. Rowland of Baltimore, Md., exhibited four very pretty 8 x 10 landscapes in Norway, and two frames, containing in all eleven plates of a map of the solar spectrum, of very superior technical merit. Besides these he sent a set of six lantern slides, mostly of Norwegian scenery. He was awarded two diplomas, one for excellence in "Applied Photography," and the other for his set of six lantern slides, and was the only member of the New York Society who received a diploma.

Frederick Vilmar had two frames; in one were eight miscellaneous views, some of the best being "Old Mill at Van Cortlandt," "When shall we three meet again?" and "Washington

Bridge," over the Harlem river. His other frame contained an interesting bromide enlargement, entitled "Water Nymphs," on the Great South Beach.

In two frames, each holding six 4 x 5 bromide enlargements from Kodak negatives made by T. J. Burton, were some of the most interesting Kodak pictures in the exhibition. A portion of the views illustrated quite fully some of the exciting features of the New York street-car strike. Others included amusing street scenes.

Mrs. Augusta F. Arnold exhibited eleven 4 x 5 views in one frame, mostly landscapes, and several views in Florida. One of the latter, "Fishing on the Ocklawaha," was especially good. Others entitled "A Hay Field," "Wine-Glass Elm at Stockbridge, Mass.," and "Among the Daisies," were very picturesque, and indicated excellent taste in choice of position.

Of Miss Elizabeth A. Slade's two pictures we preferred the instantaneous one of "Two Little Arabs at Play, Algiers, Africa." It was very neatly caught, showing effective grouping and lighting.

Some very artistic platinotype enlargements were sent by Richard H. Lawrence, in four separate frames. They were beautiful specimens of detective camera work. "A View in Loches, France," and "The Cathedral at Tours, France," were perhaps the most striking of the four. Mr. Lawrence's careful work is always worth looking at.

A. L. Simpson sent three 8 x 10 photographs separately framed. The best one was an excellent architectural view, entitled "County Seat at Larchmont Manor, N. Y." We were sorry not to see examples of his marine work, which is a branch of photography he is especially successful in.

The four bromide enlargements contributed by H. N. Tieman from 3¼ x 4¼ celluloid film negatives were not specially striking, and not what the negatives were capable of producing. That of the "Natural Bridge, Va.," was a very pretty view, but seemed to us to be too black, as if the enlargement had been slightly under-exposed, requiring perhaps too prolonged development. We have seen some especially fine film negatives by Mr. Tieman, and wonder that direct prints were not exhibited.

Three frames by Otto L. Hesse showed careful work. His best picture was called "The Little Brook." The prints were on American Aristotype paper.

Of the two Aristotype photographs sent by Chas. H. Lœber, we preferred that of a dog, entitled "Our Friend Roy," as being the most attractive.

Quite an artistic view on Obernetter gelatine paper was "Emory Brook," Catskill Mountains near Grand Hotel, by Louis B. Schram.

Harry T. Duffield sent seven bromide prints from 5 x 8 negatives, embracing several subjects. The most interesting and artistic appeared to us to be "The Edge of the Woods," showing exquisite detail, and "A Brook," a very charming study, soft and full of detail.

Dr. Samuel B. Ward contributed two flash-light groups of good quality.

Miss Catherine Weed Barnes had nine frames of 8 x 10 photographs, seven of which were beautiful examples of "Interior" work. The home-like arrangement of the furniture and the even and soft lighting displayed considerable taste and technical skill. Had a special award been made for interiors, Miss Barnes was certainly entitled to it. A frame of portraits by her showed excellent skill in lighting. They were made in her new portrait studio. An exterior of a historical house was also very well rendered. We have the pleasure of reproducing, on another page, some of her work in connection with an article on interiors. Photographing interiors, it seems to us, should be a subject of special interest to ladies, as they may perpetuate the many different arrangements of furniture, paintings, wall-paper, etc., which in the course of time are sure to occur, forming a valuable record to refer to.

In one large frame, sent by F. C. Beach, was a very fair 8 x 10 bromide print, showing the fine architecture of a "Modern Residence at Orange, N. J." Surrounding this were six smaller 4 x 5 views, some printed on Obernetter gelatine chloride paper, and others on bromide. The most striking were entitled "On the Huntington Road," "A Glimpse of the Housatonic," and "Her New Bonnet."

Charles P. Howell, U. S. N., had two 6½ x 8½ Chinese photographs. That called "Chinese Group of the Common Class," was a most excellent study and attracted much attention.

The crowd of all sorts, sizes, and ages of Chinese embraced in that small picture presented a valuable subject for the portrait artist to ponder over.

E. B. Barker and W. H. Lewis both sent a frame of Lilliput camera pictures and negatives, of fair merit. Mr. Barker also exhibited a few enlarged transparencies, enlarged from small negatives.

Among the nine marine views in one frame, contributed by Dr. John T. Nagle, were two excellent and picturesque studies, entitled "Clouds in Lower Bay, New York Harbor," and "Fishermen in the Surf at Seabright, N. J."

Passing on to the prints exhibited by members of the Boston Camera Club, we notice in frame 16, sent by R. A. Bullock, seven very picturesque views in Waterville, N. H. One in particular, called "Boulder in Mad River, Waterville, N. H.," was very attractive, representing a typical winter scene in the mountains. The effect of the snow on the trees was very striking.

William O. Witherell contributed one frame, mostly of marine views at Nantucket and Nahant. That called "Sankata Head Light, Nantucket," was perhaps the most striking.

Two frames sent by William S. Briggs contained several handsome and artistic photographs. Those entitled "The River Road," and "Sunset over Mad River Notch, White Mountains," seemed to be especially attractive, the former because of its exquisite softness, and the latter from the very peculiar cloud effect that had been so admirably caught.

A. G. Van Nostrand sent three frames, one having nine 5 x 8 views, mostly taken in Florida, and near Marblehead, Mass. A view called "Eastern Yacht Club,—Volunteer Ahead,—Marblehead Harbor, Mass.," was in the nature of a panoramic picture, being one print from two plates. It was very cleverly done. His enlargement (in frame 49) on bromide paper was too hard.

Two bromide enlargements, sent by William Garrison Reed, showed excellent skill and careful manipulation. "The view in Boston Harbor," was, if anything, carried a trifle too far, making it look rather dark.

Frederick D. Stackpole had one frame of seven views, a few of which were taken around York and York Harbor, Maine. Others included the "House of a Seeress," and "A Flock of Sheep." All were of excellent quality, the marine views being especially good.

Two large frames holding over thirty 4 x 5 detective camera foreign views taken in France and Switzerland, on ivory films, by C. E. Hubbard, were very creditable, displaying skill in manipulation and excellent choice of subject.

The two pictures that attracted our attention in Wilfred A. French's excellent exhibit were called "Drink, Pretty Creature, Drink," and "Farm at Thornton, N. H." The latter was particularly soft and agreeable, very picturesque, while the distance was brought out very distinctly.

Max L. Scull sent one frame of five views that were of fair merit. A single picture of "Roses," on a 6½ x 8½ plate, by Horace C. Dunham, was very good, showing skillful and artistic treatment.

John C. Lee sent four frames of interesting figure subjects. That called "The Young Chemist," was very happily conceived, but was spoiled by the pose being somewhat strained. The print was on toned bromide paper, and was very well done. We think Mr. Lee has set out on the right path, and will eventually produce some very interesting and attractive pictures.

Eight very pretty views in the Maine woods, by William F. Dusseault, exhibited good technical qualities and artistic merit. The picture, entitled "Undisturbed Maine Woods," was remarkable for the sense of loneliness and exquisite detail in the trees and vegetation.

In the four frames sent by Quincy Pond, two photographs called "The Mill-Sunset," and "The Brook," seemed to us to be the best.

Hamilton Emmons had two frames of excellent views on the coast of Maine. A view at North Grafton, Mass., was a very effective landscape, and next to his figure subjects was perhaps the best, in Charles H. Currier's collection.

In Charles Le Baron Withrow's large exhibit, including several marine views, that

entitled "A Dreary Wreck Lay She," was beautifully caught and quite artistic, represented an old wreck partly enveloped in the clashing and dashing waves.

Edward F. Wilder, secretary of the Boston Camera Club, contributed five frames, three of which were bromide enlargements; these were of fair merit, and perhaps as good as the negatives would produce. But we have seen better ones. His frame of portraits exhibited excellent effects in lighting, were well posed, and very soft and pleasing.

"A New Silver Compound" is the title of a very good interior of a laboratory, exhibited by Samuel Starrow, shows the chemist at work, apparently testing the compound.

The only diploma taker in the Boston Camera Club was Horace A. Latimer who had a very large display and variety of work, distributed among seven frames, all of which were of fine technical quality. Among his attractive landscapes was one entitled "Early Autumn, Charles River" (well chosen and an excellent study of trees). His frame of portraits embraced a variety of subjects; one called "Meditation" was especially good, very soft, and so scientifically developed that the details in the white dress were well preserved. Another frame of 8 x 10 architectural views about Cambridge and Boston were beautifully done. His excellence in so many styles of work shows that he has had considerable experience and an adaptability to perceive the best points of the subject to be photographed, that is truly surprising.

W. G. Preston's combination picture, entitled "I, Me, and Myself," was a very clever piece of combination printing or of blending different views of one person on the same plate. From the foregoing it will be noticed that the work of the Boston Camera Club, though not very large in extent, was fully equal to the standard shown at their own exhibition last year, and, as a whole, was very creditable.

Reviewing the work of members of other societies we notice first the exhibits of W. B. Post and Franklin H. Harper, both of the New York Camera Club. The former had two full length figure studies, made out of doors, that were very good indeed, well lighted, nicely posed, and beautifully finished. An 8 x 10 view, entitled "At Glenside," New Jersey, was rich in beautiful detail, and a general softness and depth that was especially pleasing. Mr. Harper sent one frame of six interiors, taken on 5 x 7 plates, that were not up in quality to his former work, yet they exhibited excellent taste. His interior of "Study of James A. Garland, Jr.," was to us the best of all of them.

G. Harry Squires, Secretary of the Plainsfield (New Jersey) Camera Club, had three frames of 5 x 8 prints, nine in each frame, of views in Catshill, around home, and "Glimpses of Milburn Brook." The latter were very artistic, soft, and attractive. All of his work showed careful manipulation.

In the three frames of 5 x 7 views sent by Wm. P. Atwood, of the Lowell Camera Club, was one entitled "Marblehead Rocks," which was remarkably clear and effective. George A. Nelson, of the same association, won a diploma for some splendid work. His 5 x 7 picture, "The Village Blacksmith," was a remarkably good interior, well lighted, showing excellent grouping, and fine skill in bringing out details in difficult places. Another, an animal study of "Draught Horses," was beautifully done.

Henry R. Taylor, of the Columbia College (N. Y.) Amateur Photographic Society, sent three frames, mostly of marine views around Newport, R. I., and of Niagara Falls. One entitled "American Falls" was excellently caught. Another fine surf view was "End of Bathing Beach," Newport, R. I. Still another, "called "Lovers' Lane," at Newport, was full of exquisite detail, yet very artistic and agreeable. Mr. Taylor's work was very creditable.

Daniel Miller, of the Baltimore Amateur Photographic Society, contributed two frames of 5 x 8 views, including quite a variety of subjects. One that was particularly noticeable for beautiful cloud effects was entitled "Just After Sunset, August 2, 1888."

One frame showing several views of the interior of the American Institute, 1888, Fair, by Charles Wager Hull, the veteran amateur, were exceedingly well done. Charles H. Davis, of the Plainfield Camera Club, sent a large number of photographs, mostly portraits, in one frame. A three-fourth length view of a lady reading a letter, was well taken, nicely lighted, and artistically posed.

H. M. Howe, of the Philadelphia Society, had five frames, embracing mostly photographs

of horses and marine subjects. One of his finest was a splendid picture of an imported Percheron stallion "Bruno." The peculiar qualities of the noble animal were well portrayed; the picture was beautifully clear and distinct, exhibiting careful manipulation.

W. H. Walmsley sent four frames, three of which were bromide enlargements, the prettiest of these was called "Tree Studies," but appeared to us to be a trifle too sooty. His frame of Kodak Studies was very good.

The beautiful composition shown in Harry Tolley's (of Nottingham, England,) platinotype picture, "On the Lonely Shore," was greatly admired, and was an excellent example of the art effects that can be taught by photography. His other picture, "A Frosty Walk Near Wilford Nott's," was one of the handsomest toned bromide prints we saw at the exhibition and seemed to be particularly well adapted to the subject. Both negatives were made on Eastman negative film paper, and must have been very perfect, judging from the resulting prints.

Prof. S. W. Burnham (member of the Chicago Lantern Slide Club), at present a resident of the Lick Observatory in California, exhibited quite a large number of photographs (twenty-seven frames in all) that were exceedingly well done. The views were mostly about and from the Lick Observatory. One that was very picturesque, especially as regards snow and cloud effects, was entitled "Lick Observatory, from East Peak." Other frames included excellent views of the moon.

In transparencies were exhibits sent by Quincy Pond, on an opal plate, and excellent enlarged transparencies of views in the Yosemite Valley, by Hamilton Evans, both members of the Boston Camera Club.

Two transparencies of average merit were sent by Hugh A. Smedburg, also a few enlarged transparencies were contributed by E. B. Barker. Williams & Brown, of Philadelphia, sent in one frame a number of peculiar looking transparencies made by the wet plate process.

The exhibition was particularly rich in the large number and excellent quality of lantern slides submitted. John Bartlett, of Philadelphia, Penn., sent 16, including several interesting figure subjects and flash-light studies; W. S. Briggs, of Boston, Mass., 18, views in the White Mountains, marine views, and snow landscapes; Miss Catherine Weed Barnes, Albany, N. Y., 6, miscellaneous views, one of a "Road to the Woods," being very artistic; A. S. Van Nostrand, Boston, Mass., 6, views in the Ausable Chasm, and of surf; Thos. Wakeman Lane, Philadelphia, 6, house in which President Buchanan was born, and views on Conococheague Creek, Penn.; William A. Bullock, Philadelphia, 7, views in Belgium, Switzerland, and Italy; Frank S. Lewis, Philadelphia, 6, views of ducks, sheep, and kittens; Prof. H. A. Rowland, Baltimore, Md., the prize set of 6, views in Norway, and on the coast of Maine; Anthony W. Robinson, Philadelphia, 9, views in the Adirondacks, and historical places in Williamsburg, Va.; V. E. Forbes, Rochester, N. Y., 6, miscellaneous subject, including an excellent portrait of a little girl; Robert S. Redfield, Philadelphia 8, views in Berkshire, Mass., pretty child studies; Edmund Stirling, Philadelphia, 12, attractive views along the Brandywine river, and several interesting road studies; Theodore N. Ely, Philadelphia, 31, instantaneous views in England, and Rome and Venice, Italy; Hamilton Emmons, Boston, 18, views in the Yosemite Valley, Cal., and Maine; E. T. Bradway, Woodbury, N. J., 6, views around Woodbury, and a church interior; Thomas L. Perot, Philadelphia, 10, views in the White Mountains, Florida, and Canada; George A. Piersol, Philadelphia, 6, views in Switzerland; E. M. Pine, Philadelphia, 14, mostly interiors by the flash-light; Dr. A. Graham Reed, Philadelphia, 30, views on the Maine coast, and in Germany; Thos. Kennedy, New Brighton, Penn., 6, views of frozen ice; Daniel Miller, Baltimore, 6, views near Baltimore; John H. Bradway, Woodbury, N. J., 6, views in and about Woodbury; Frank H. Rosengarten, Philadelphia, 13, several steamer and yacht views, and views of the centennial parade; E. F. C. Davis, Pottsville, Penn., 18, views of the interior of coal mines, and a few figure studies; W. D. H. Wilson, Philadelphia, 7, figure and animal studies; Dr. Charles L. Mitchell, Philadelphia, 25, beautiful views in the Franconia Notch, N. H.; Henry H. Suplee, Philadelphia, 6, figure subjects; R. T. Hazzard, Philadelphia, 8, groups, and cascades; Frank Bement, Philadelphia, 6, views in Enfield Glen, and Lake George; F. C. Beach, New York, 6, street views in Stratford, Conn.; Edward B. Harden, Philadel-

phia, 2, interior of a coal mine; Major George H. Shorkley, New York, 6, views along the East River, New York; Alfred H. Simpson, New York, 6, views of yachts, and Central Park elephants; Charles Simpson, New York, 6, miscellaneous figure subjects and groups; J. Wells Champney, New York, 6, views near Deerfield, Mass., and in Florida; H. A. Lattimer, Boston, 30, views in the Yosemite Valley, Cal., surf at Marblehead, in Florida, and animal and children studies; William H. Rau, Philadelphia, 18, animal studies, interiors, and views of New York Bay and Atlantic City (N. J.) beach; Morris Earle, Philadelphia, 9, views along the Wissahickon and in Vermont, and Worcester, Mass.; W. H. Walmsley, Philadelphia, 14, interesting marine views in mid-ocean, and views on Brandywine Creek; Edward F. Wilder, Boston, views in Vermont, Virginia, and along the Charles River; George B. Wood, Philadelphia, 6, studies of children, and groups.

The total number of lantern slides submitted for competition nearly reached 450; in addition to these were many others loaned by the American Lantern Slide Interchange, so that a safe estimate of the whole number of photographs of all kinds sent to the exhibition would be over two thousand. The majority of the slides were made on the slow lantern dry plates, developed either with hydroquinone or ferrous oxalate.

The excellent character of the work shown at these joint exhibitions should be an incentive to many amateurs, who have good work, but neglect the opportunity of publicly showing it, to bring it forward. We hope judicious and well-directed efforts will be made by the officers of the New York Society, next winter, to arouse a wide-spread interest among amateurs in the exhibition it will be the society's turn to hold, that the public may have a chance of witnessing the results of the latest progress in this most fascinating art.

F. C. B.

USEFUL HINTS.

Dark-Room Lamp.—Mr. M. P. Warner has sent us photographs of a simple dark-room lamp which has four glass sides, composed of one pane of orange and one pane of green glass, separated half an inch apart, thereby making four reflecting surfaces for the light from an ordinary kerosene lamp, placed inside, to pass through. Thus arranged, the glass deadens and softens the light quite effectively. The lantern box is sixteen inches square, outside measurement, and twenty inches high, is made of pine, and costs about $15, with the glass. The bottom is raised by small legs and is perforated to admit air to the lamp. The top is protected by a four-inch-in-diameter Russia iron chimney, having a conical cap to cut off the light rays. Being large and roomy the lantern does not get overheated. If it is placed in the center of a table it will furnish light enough to develop four different plates at one time, in as many pans. Mr. Warner has also gotten up a very simple single plate-holder for holding films, which we hope to illustrate in a future number.

Non-actinic Color for Glass.—Mr. W. H. Harrison suggests mixing fluorescine with albumen and flowing it over a plate to obtain a non-actinic glass for dark-room purposes. It has a yellow color; according to his experience it will not fog a plate any quicker than the best red light, but appears very much brighter to the eye. Combining another glass with this, coated with a carmine tinted albumen, gives a brilliant light, clear and non-actinic.

Developing by Ordinary Gas Light.—We were invited by Dr. J. J. Higgins, of New York, to witness his experiment of developing fast plates by the aid of gas light, but were unable to attend. Some of our friends, however, saw the experiment, and described it as a very successful one. By putting the plate in the tray, located at some distance from the blue flame of a gas light, the plate will not fog. Then the ferrous oxalate developer is poured over it, which, from its non-actinic character protects the plate from white light. The gas light may then be increased, and the development watched as readily and safely as if the deepest ruby light was employed. The safest plan is to keep at a distance from the light

until the development has advanced considerably; after that the danger of fogging is very slight. The ruby color of the ferrous oxalate solution takes the place of the ruby glass. After the image is developed far enough the plate is removed from the tray in the bright gas light, washed and then fixed in hypo. Dr. Higgins turns out remarkably clear and crisp negatives by this plan, but finds oxalate somewhat slower than pyro. We understand a preparation is soon to be put on the market by which any kind of a developer may be colored and rendered non-actinic, enabling plates to be developed in subdued daylight, or gas light. When plate makers caution users to exclude the smallest ray of white light from the dark-room to prevent damage, this method of using the same light to develop by seems somewhat paradoxical.

Test Your Apparatus.—In purchasing new apparatus, either cameras or plate-holders, never take the manufacturer's word for it that they are absolutely light-tight. These necessary pieces of apparatus are now made in such large quantities that manufacturers seldom stop to test them experimentally. To test the light-tight qualities of a bellows, put the plate-holder in position, remove the lens board, then while holding the camera in bright sunlight, cover the head with the focusing cloth, and look in at the front. The space occupied by the lens board is so small that it is very easy to exclude the light and watch for any leaks. While looking, revolve the camera so that the sunlight falls squarely on three of the flat sides of the bellows. Should no leak be observed you can rely upon the bellows being reasonably light-tight. The front of the camera can be tested also in the same way by removing the ground glass and looking in at the back. By placing the camera on a tripod, in the sun, and putting in empty plate-holders, these can be readily tested for light leaks by drawing out the slide while one looks in at the front of the camera. If the light trap in the holder works poorly, pencils of light will be seen shooting inward. This advice is equally applicable to apparatus that has stood for some time, hence the safest way is to occasionally test the camera and holders for light leaks. Sometimes leaks occur in the screw-holes in lens boards, and cause fog and duplicate miniature pictures on one section of a plate. Censure of plate manufacturers will in many cases be avoided if these precautions are observed, while the negatives will have a crispness and brilliancy that it is pleasant to see. It is always advisable to cover the camera and plate holder with the focusing cloth before drawing the slide.

Ink for Writing on Photographs.—The following answers very well for numbering and marking proofs, the writing being executed on a dark portion:

Iodide of potassium, ...	10 parts.
Water, ...	30 "
Iodine, ...	1 "
Gum, ...	1 "

The lines soon bleach white under the strokes of the pen by the conversion of the silver into iodide.—*Photographic Review.*

The Pyrocatechine Developer.—This new developer is said to develop gelatine-bromide plates with as much vigor as pyro, very little of it going a great ways, yet it is absolutely free from fog, or from producing what is known as chemical fog. We have not as yet had an opportunity of practically testing its merits, but hope in a short time to try it and report upon its characteristics. A formula, said to be reliable, published in a French publication which we find reproduced in the *Photographic News*, is as follows:

SOLUTION A.

Sulphite of Soda, ...	100 grammes.
Hot distilled water, ...	400 c. c.

SOLUTION B.

Carbonate of Soda, ...	100 grammes.
Water, ...	400 c. c.

To develop, mix 30 c. c. of A with 60 c. c. of B, and add one gramme of pyro-cate-

chine. [If 15 grains are allowed to one gramme and 15 minims to one cubic centimetre, the formula can be easily and approximately reduced to English weights.]

Eikonogen Developer.—

I.—FOR SEPARATE SOLUTIONS.

A.

1. { 4 oz. sulphite of soda, ... } Dissolve.
   { 60 " distillled water, ... }

Add 2 oz. eikonogen.

B.

3 oz. carbonate of soda (crystals), . . . } Dissolve.
20 " distilled water, ... }

Mix 3 parts of A with 1 part of B.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts sodium bromide, and 70 parts distilled water.

II.—FOR READY PREPARED SOLUTIONS.

4 oz. sulphite of soda, ... }
3 " carbonate of soda (crystals), . . . } Dissolve cold.
80 " distilled water, ... }

Add 1 oz. eikonogen.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts sodium bromide, and 70 parts distilled water.

III.—SOLUTION FOR PLATES TAKEN VERY QUICKLY.

2 oz. sulphite of soda, ... }
1 " carbonate of potash, ... } Dissolve cold.
30 " distilled water, ... }

Add 1 oz. eikonogen.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts sodium bromide, and 70 parts distilled water.

For solutions I. and II. one-half to three-quarters of the exposure allowed for pyro and hydrochinon is sufficient. For longer exposures dilute with half the quantity of water, or add sodium bromide. Do not take potash except for solution III., and avoid the use of ammonia. Do not put acid in any of the solutions, and do not use metallic sulphite. Instead of distilled water rain-water can be used, or well-water which has been clarified by soda (35 grains to 35 ounces of water). The sulphite of soda must be in an absolutely perfect condition.

PRELIMINARY BATH FOR UNDER-EXPOSED PLATES.

1 grain hypo.
5 ounces water.
1 drop of a 1 to 100 bichloride of mercury solution.

Bathe the plate in this solution for one minute, and then proceed to develop without washing the plate.

ALUM BATH.

After development, the plates are washed and placed for one minute in a 1 to 20 alum solution, which must not be used many times.

The Eastman Transparent Film.

BY G. D. MILBURN.

[Read before the Society of Amateur Photographers of New York.]

JULY 30, 1889.

Ladies and Gentlemen,—It affords me the greatest pleasure to come before you to-night with the Eastman new Transparent Films. We have long been looking for an article of this kind, at the same time never expecting to realize our fond wishes.

The Eastman Company have carried on a series of experiments extending over a number of years, under Mr. Eastman and Mr. Henry Reichenbach's supervision, and the outcome of these experiments, I am happy to state to you, is a perfectly transparent and flexible nitro-cellulose basis for a sensitive film.

The advantages of these films to the photographer over glass dry plates and all other films on the market, briefly summed up are as follows: superior transparency, greater flexibility, lightness, compactness, practicability of printing from either side of the negative, and lack of halation.

Heretofore non-transparency has been a great stumbling block to a flexible film, but we can safely say that this is entirely overcome in these films, as you see by our samples they are about as transparent as glass, and the great flexibility of these films makes it practicable to wind as many as one hundred exposures on one spool to be carried in one "Roller Holder." In fact experience has taught us that the best method to keep films of any kind absolutely flat during exposure, is to keep them strained over a board from spool to spool, in the manner of the Eastman-Walker Roll-Holder. The films carried in this manner makes a view outfit very light as compared with the glass dry plate outfit. One hundred of these films ready for exposure will not weigh much more than six of the same size dry plates, and a Transparent Film View Outfit will not occupy over one-tenth part the room of a glass dry plate outfit of the same size.

Think of the boon to the landscape photographer! No longer need he make a drudge of himself when prospecting for views in the hills or mountains.

These films are so thin that it will be possible to print from either side of the negative, and being so thin there will be practically no halation to be met with in this negative. The backing of these films is impervious to water and unaffected by chemicals in the developer, therefore there is practically no contraction or expansion during the operations of development drying and printing from the negatives which must stamp this as the very best basis to hold a sensitive film.

These films will be coated with very rapid as well as slower emulsions, and will be marked on the outside of each package with their respective sensitometer marks.

The Eastman Dry Plate & Film Co. have opened a new factory equipped for this especial work, and they lay claim to have complete control over the quality of these films. This company's improvement, by the addition of the single revolution audible indicator and intermittent marker on their Roll-Holders for these films, makes this system of photography perfectly practicable for the studio and field. The following formula is recommended for these films:

PYROGALLIC ACID SOLUTION.

Pyrogallic Acid,	½ ounce.
Nitrous or Sulphuric Acid,	20 minims.
Water,	32 ounces.

SODA SOLUTION.

Sulphite of Soda (crystals),	6 ounces.
Carbonate of Soda (crystals),	4 ounces.
Water,	32 ounces.

To DEVELOP, take

Pyro Solution,	1 ounce.
Soda Solution,	1 ounce.
Water,	2 ounces.

RETAINER.

Bromide of Potash,	1 ounce.
Water,	6 ounces.

Restrainer is to be used only in case of over-exposure.

As soon as developed rinse slightly and transfer to a saturated solution of common alum for 2 minutes, then rinse again and fix.

FIXING SOLUTION.

Hyposulphite Soda,	4 ounces.
Water,	16 ounces.

If a number of films are fixed together in one tray they should be put *face down* to avoid scratching or cutting the sensitive side by contact of the sharp corners.

After fixing, *wash thoroughly;* then immerse for one minute in the

SOAKING SOLUTION.

Wood or Grain Alcohol,	16 ounces.
Water,	16 ounces.
Glycerine,	½ ounce.

Remove from the Soaking Solution and pin up each film by the corner to dry spontaneously.

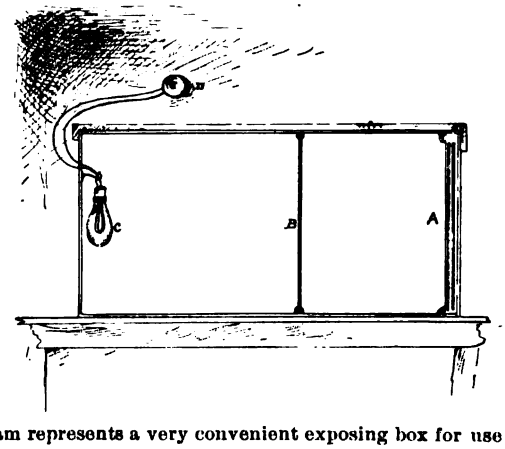
SUGGESTIONS.

A good way to dry these negatives is to pin them by two corners to the edge of a shelf and then pin the lower corners to a light strip of wood. Any tear drops of the Soaking Solution should be removed with a bit of blotting paper or absorbent cotton. When the negative is thoroughly dry, *wipe off the back with a soft cloth.*

The object of the Soaking Solution is to prevent the film from curling when dry. The negative must *not* be rinsed after the Soaking Solution.

Always keep finished negatives flat—*do not roll them up.*

Electric Light Exposing Box.



The above diagram represents a very convenient exposing box for use in the dark-room, recently constructed and used by the New York Society of Amateur Photographers. It was specially planned and built under the supervision of Mr. A. L. Simpson, chairman of the House Committee, who has been very active in devising conveniences for the members, and whose work is greatly appreciated.

The apparatus is simply a rectangular box, set upon a shelf, having a sixteen candle power incandescent electric lamp, B, hung from a hook at one end of its interior, while at

the other end are grooves fixed for an ordinary print frame, D, holding the negative and sensitive plate, to slide in. Interposed between, at a short distance from the frame is the ground glass, C, or a sheet of celluloid. The box is large enough to hold an 8 x 10 printing frame. The wires from the lamp, B, lead up to an ordinary push switch, A. After the printing frame is inserted the cover is closed, and the button, A, pressed as long as the light is wanted. Exposures by contact, for slides or transparencies, are thus made very quickly and easily, while there is no interference whatever with others who may be operating in the dark-room. The cover of the box has side-strips which extend below the top edge, making it light-tight. In the hinged portion of the cover is also a transverse tongue and groove, which effectually stops the light from leaking out at that joint. The inside of the box is painted white. The electricity is brought in from the street, connected to mains operated by an electric light company's dynamo.

A New Dark-Room Electric Light.

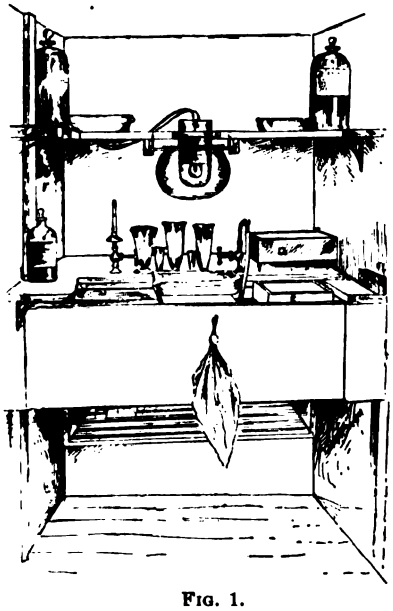


FIG. 1.

In addition to the exposing box Mr. A. L. Simpson has gotten up a new incandescent electric dark-room light, that is somewhat novel in its principal features. It has been put into use in the New York Society's dark-room. As will be seen from the cuts it consists of an ordinary fish globe, about eight inches in diameter, suspended from a movable sliding shelf located over the developing sink. An inverted cylindrical glass globe, such as is used to cover small vases or statues, about four inches in diameter, containing a suspended incandescent electric lamp, is inserted into the fish globe. The upper portion of the cylinder is covered by a zinc cap, which extends down on the side until it reaches the top of the lamp, and serves to keep the light from rising upward. The wires extend up through the top of the cap to the switch placed on one side of the stall. The cap is fastened in place by a zinc strap passing around it and attached by screws to the end of the shelf. The fish globe is now filled with an amber red colored solution, made by dissolving suitable dyes in water. When the switch is turned on the electric light is transformed, by filtration through the colored water, into a beautiful soft diffused ruby light, which, though brilliant, appears from careful tests to be very safe. Screens are placed in front to shade the light from the eyes. The light is thrown down on to the tray and also equally illuminates all portions of the sink.

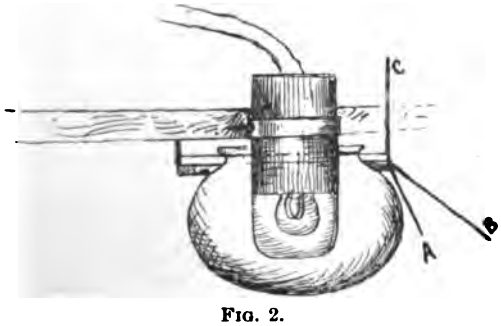


FIG. 2.

Fig. 1 is a general view of one of the developing stalls recently fitted up by Mr. Simpson in the Society's dark-room, showing the arrangement of shelves, boxes, etc. D is the hypo tank, E the washing box, and F the switch for turning on or off the electric light in the globe suspended from the center of the shelf over the sink. The wires may be seen running from the switch through the center of the top of the zinc cap, and as they fit snugly in the

holes in the cap, they support the lamp within. This illustration is drawn directly from a photograph furnished by Mr. Simpson. A rack is attached to the bottom of the sink to hold large trays, while suspended from the front of the sink is a towel.

Fig. 2 is an enlarged side elevation of the electric globe, showing the zinc cap over the electric cylinder-globe to prevent light from shooting upward. A is a sheet celluloid screen for softening the light to view the negatives by transmitted light; B is ferrotype plate to shield the light from the eyes, and swings on a wire attached to the end of the shelf; C is an upright screen to prevent any upward rays from striking the eyes. The whole arrangement is very simple, effective, and extremely convenient.

Developers and Development.

Ten Per Cent. Solutions.—While a ten per cent. solution of ammonium bromide is about right, as a rule such solutions are too bulky; twenty to thirty ounces are plenty large enough to mix at one time, that is the bottles are full large enough to be handy. Eight to sixteen ounces is about the right size for pyro bottles. We always take 480 grains to be an ounce, because this number can be readily divided and subdivided, and the subdivisions are quite small enough for all practical purposes. In fact we do not usually weigh out smaller quantities than one-quarter pound or ounce, using water to dissolve and dilute, and the glass graduate to measure to any degree of fineness required.

Stock Solutions.—These should be concentrated. and diluted when required for use Although the decimal system is most excellent for computation, it increases and diminishes rather too rapidly for our purpose. There is nothing arbitrary in measurements in photographic chemistry, especially in the case of the alkalies, but we must understand the nature of the chemicals and work on the safe, *i. e.*, the acid, side of the middle, or neutral, point to begin with. Of course we may figure out the number of grains used, especially of pyro, but it is difficult to tell how many grains of alkali will be required to bring out the latent image and thicken the image to the proper density. Much depends on make of plate, the subject, strength of light, length of exposure, etc. It is more a matter of judgment, memory, and proportions than grains. Old developer should be thrown away. If the normal developer is tempered right, it will usually be exhausted when the plate is developed, no matter what it is composed of—pyro, hydrochinone, or anything else. If an unknown quantity of restrainer has been added, during development, the developer should not be used to start another plate. If contrast is desired, add a few drops of bromide or acid (citric or sulphuric) before beginning development. Use a dropping tube or minim glass. For time exposures the developer should be weak rather than strong. The time of development may vary from fifteen to thirty minutes. The best tone gradations are built up slowly.

Saturated Solutions.—While some saturated solutions may be too rank to be used handily with the necessary exactness, one or two parts of water added to a given quantity will remedy the matter. At an ordinary temperature of 60 or 70 degrees we expect the different elements of the alkali solution to be soluble as follows:

Sulphite of soda in 4 parts of water.
Carbonate of potash in 1 part of water.
Carbonate of soda in 1.6 parts of water.
Yellow prussiate of potash in 4 parts of water.

If we consider the nature of these chemicals, we find that those requiring most water to liquefy them are nearest the neutral point, and have keeping, preserving, or staying qualities, while the others are more impulsive and powerful in action, being stronger alkalies. We must depend on sulphite of soda for the bluish or slate color which makes the negative a quick, or good printer. More sulphite may be used for portrait work than for landscapes. The same is true of carbonate of soda, as softness is a desirable quality in portraits. Car-

bonate of potash is best for views, giving more brilliant negatives. If we mix the No. 2 or alkali solution by weight, the following are good proportions:

Water,	16 or 20 ounces.
Sulphite of soda,	4 ounces.
Carbonate of potash,	3 ounces.
Yellow prussiate of potash,	1 ounce.

In other words, taking the carbonate of potash for the standard, we add one-third more of the sulphite (in crystals), and one-third as much yellow prussiate. Some omit the last addition, but it is good for landscape work as it tends to keep the shadows clear. If saturated solutions are used it is easy to calculate the same proportions. The pyro, or No. 1 solution, may consist of

Water,	12 ounces.
Sulphuric (or citric) acid,	1 dram.
Pyro,	1 ounce.

Seven or eight grains of pyro will develop a 5 x 8 plate.

Normal Developer.—

Water,	4 ounces.
No. 1,	1½ drams.
No. 2,	1 dram.

The latter may be gradually increased if necessary. No. 1 need not be increased unless the plate is very much undertimed; the quantity given may be taken as fixed. In warm weather and with over-exposures it will be necessary to add a few drops of the restrainer.

Hydrochinone Developer.—

A.—Water,	30 ounces.
Sulphite of soda (crystals),	5 ounces.
Sulphuric acid,	1 dram.
Hydrochinone,	1 ounce.
Bromide of potassium,	30 grains.
(In cold weather the amount of acid may be diminished.)	
B.—Water,	30 ounces.
Caustic soda (stick),	1 ounce.

Normal Developer.—

Water,	8 ounces.
A,	1 ounce.
B,	½ ounce.

MILAN P. WARNER.

CORRESPONDENCE.

Editor American Amateur Photographer:

You started out well,—I received full value for my first investment with you. My Kodak negatives have often given great trouble in stripping, causing the loss or partial destruction, usually of the most prized "catch" on a string. Thanks to Mr. Milburn's useful hints in your first number, I am now peeling off the most desperate old developer-yellowed, and browned strippers, without a single failure.

Wanted—a new article on sale. It is not infrequently the case that the Kodaker (I hope Mr. Eastman is duly sensible of his great responsibility, as the primal cause of these horrid parts of speech, "to Kodak," "Kodaked," "Kodaker,") wishes to make a small number

only, of bromides, or silver prints from one or more negatives. I may remark right here that I never found two instantaneous negatives which would print together. All sizes of albumen-silver and bromide paper now in market cut to waste, and inconveniently. What a comfort it would be to have a special Kodak size in two-dozen packages, on the market, same as the 4 x 5 sizes of some papers. Eh?

ROGER CUNNINGHAM.

LANTERN EXHIBITION FOR A CHARITABLE PURPOSE AT NYACK, N. Y.

The two well-known New York amateurs, Mr. H. J. Newton and Mr. Charles Simpson, while summering at Nyack, on the Hudson, recently gave a lantern exhibition at the opera house of that place, for the benefit of the Nyack library. The large hall was filled with a select and appreciative audience, and the slides projected upon the screen consisted of one hundred and thirty-five select views of the recent centennial parades, and other subjects, being the work of different members of the Society of Amateur Photographers of New York, and obtained through the courtesy of the lantern slide committee of that society. Among the contributors were Messrs. Richard H. Lawrence, A. L Simpson, F. C. Beach, C. C. Roumage, Jr., H. J. Newton, Charles Simpson, Dr. J. T. Nagle, George H. Shorkley, Ferdinand Ruppert, J. E. Plimpton, Wm. M. Murray, and J. Wells Champney.

S.

BOSTON LETTER.

There is little to record as to the official doings of the Camera Club in this city during the past month. There has been only one meeting of the members, and that to listen to the exposition of Mr. Milburn of the Eastman Dry Plate and Film Co. of the beauties and uses of the new transparent film. As this has been so much written about in all the papers, I think that a description here will be superfluous. There is one point upon which there has been much feeling in the club, and upon which there will be some decided action taken in the fall. It seems that there are some of the members, luckily for them, a very few, who have been using the studio of the club for the purpose of doing professional work; in other words they have been giving sittings and charging professional rates. This has been carried on to such an extent as to annoy those who use the studio in a legitimate manner. As the membership of the club is now full, and there are quite a number of desirable men who will apply in the fall, the committee propose to accept the resignation of these obnoxious members, and give some others a chance. This is as it should be, for an amateur should conduct himself as such, be it in the field of athletics or photography. It is somewhat surprising to see the steady improvement which the members of the club are making, and those who visit us from other cities state that our work is second to none in the country. Rev. M. L. Williston, the President of the Chicago Club, visited our studio the other day. He expressed himself pleased with the arrangement, although our quarters are not so large as those in his city. He thinks that by all means a club should admit the ladies to membership. He told me that his election to the presidency of the Chicago Club was a veritable surprise, as he happened to be present at the organization meeting as the veriest beginner. His name was proposed, and, being a well known Episcopal clergyman, he was elected. He is an enthusiast now. His forte is the making of lantern slides, and we shall have a chance to see some of his work when the Chicago Club send on their exhibit next winter.

Brookline, the beautiful suburb of Boston, has a large following in the amateur line, and as it is the richest town per capita in the United States, amateur photography should thrive there. There is now some talk of forming a camera club there, although many of the amateurs belong to the Boston Club. The young ladies would form the larger proportion of the members, and there is no doubt that a membership of nearly forty could be secured.

Mr. B. K. Moody of the *Boston Herald*, who has done some of the most extraordinary work for an amateur, notably the taking of a picture of the members of the Chamber of Commerce, has patented a little invention in the way of a holder and lifter for plates, which is the best thing that has come to my notice. In view of the fact that certain photographers

are complaining of the poisonous effects of hydrochinon, it is probable that there will be quite a call for some such device. The *Herald* numbers on its force another prominent amateur, Mr. Binden, whose pictures of lightning flashes were among the first to be taken. He states that he sold several hundreds, to go to all parts of the world. Speaking of the *Herald*, there will be an innovation in its photographic column, to take effect next week. The editor will head the column each week with some startling cut, a reproduction of amateur work. He has now quite a collection and wishes that all who have astonishing poses or results would send him a copy. All such will be credited, if used. The extent of the sale of lenses is simply astonishing. Mr. Wilfred French informed me the other day that his house would average the sale of 3,000 Voigtländer Euryscopes a month. Such a statement seems almost fabulous for such a high priced lens, but I give it on his authority. Nearly all the amateurs are now away on their vacations, and the first fall meeting will probably bring together the results of many specimens from all over the world.

GREENOUGH.

OUR ENGLISH LETTER.

In July last appeared the first number of the *Photographic Review*, a new weekly paper edited and published by T. Bolas, late editor of the *Photographic News*. The aim of this new contribution to periodical literature will be seen from the following quotation taken from the original prospectus:

"The editor of the *Photographic Review* long held the editorship of the *Photographic News*, but constant friction between him and the proprietary culminated in his dismissal. This friction arose mainly—indeed, almost entirely—from the fact that he wrote too plainly regarding matters which concerned the commercial interest of some of the most extensive advertisers. Especial offense arose because he very uncompromisingly denounced the conduct of dealers who had supplied mounting cards of a material so impure as to cause the photographs to rapidly fade or become spotted, thus injuring the reputation of photographers of previous high standing, and tending to bring struggling photographers to ruin.

"The *Photographic Review* will be conducted on similar independent lines, and it is believed that such a policy will be approved of and supported by all dealers in photographic materials, except the few who attempt or desire to obtain puffs in the literary pages of the journals.

"The *Photographic Review* is rather a comprehensive review than a news sheet of undigested items, and in this respect it is a departure from the beaten track. Owing to the considerable increase in the number of the photographic societies, and the custom of giving short reports of each meeting, the same item of information is published many times over, and each time in a short and imperfect form. The *Photographic Review* will rather give digested articles on current subjects than short formal reports."

Mr. Bolas has always unflinchingly exposed frauds, and he conducted the *Photographic News* with independence and ability, so that his new venture will be welcome to all sincere and honest workers in our art.

Mr. T. C. Hapworth, the late able editor of the *Camera*, has been appointed joint editor of the *Amateur Photographer*, a matter for sincere congratulation. The *Photographic Art Journal* has recently changed its form for the better. This paper cultivates especially the artistic side of photography, and is most ably edited by Mr. Hinton, a gentleman who possesses sound knowledge of his subject as well as literary ability. Two capital illustrations are given in each number, and all we can say is, that we wish the *Photographic Art Journal* appeared every week, and that all earnest students of photography were lucky enough to be able to read it. The new and ably conducted journal, *Photography*, will do great good over here. It gives each week leading articles of great value, its staff of leader-writers being Captain Abney, Professor Burton, Mr. Davison, Mr. Chapman Jones, Mr. Pringle, and Mr. F. H. Sutcliffe, all well known *workers and writers* in different departments of photography, and all sound teachers in the subjects which they write upon. Messrs.

Sturmey and Welford, the editors, are indeed to be congratulated upon their venture, and we feel sure all these new journals will do much for the advancement of our art.

A prospectus has been issued by a private association, in which is set forth the terms of publication of a series of photo-etchings from negatives from nature, the publication being clumsily called "Sun-Artists." The plates of prominent photographers are to be published quarterly in a portfolio, with descriptive letter-press, the number of plates at present being limited to four. There will be a limited edition printed on India paper and limited to one hundred copies. The prints are unlimited. The price is reasonable, and if the photographs to be reproduced are carefully selected with a view to their artistic qualities, great good will result from the publication. The prospectus, however, is a youthful production, and augers ill for the sagacity of the managers. This publication is claimed as "epoch-marking," which is of course absurd, for photo-etchings in all forms have been published here and elsewhere, and you have instituted a new departure in illustrating your publication with photo-etchings from nature, to say nothing of *Sun and Shade*. The title chosen, "Sun Artists," is open to grave objections, as it is likely to still further propagate the erroneous maxim that "photography is mechanical." The word "artists," too, is, in this connection, presumptuous and to be deplored, since but few photographers have ever had any art training at all.

Judging from the correspondence columns of the journals there seems to be a growing desire amongst amateurs to publish their "works," a desire that we sincerely hope, for the sake of photography, will not be gratified in the majority of cases. These exceptions will no doubt find publishers in the "Sun-Artist" Association. It has been well said that amateur artists and authors always think their productions equal to those of highly trained men, and that the world will be grateful for them, but the world is wiser than they think. If an amateur works hard and produces really good work, he will find no difficulty in getting a publisher, and for this reason he should have preferred to see all works published on their own merits rather than to see the works of *dilettanti* fostered and published by amateur traders.

Platinotype printing is greatly on the increase in this country. I have seen platinotypes exhibited in all sorts of small out-of-the way photographers' windows, where albumenized prints formerly held entire sway. This is a healthy sign, and shows there is hope that all good things will quickly filter down to the lowest strata of the trade.

The *Magazine of Art*, our most advanced artistic periodical, in a recent issue gave a highly favorable review of the late Mrs. Cameron's naturalistic portraits. This magazine has always generously praised really artistic photography, and I was delighted to see it boldly announce that it had now been proved that photography in the hands of an artist can produce works of art. The critic of an evening paper, *The Star*, an American black and white artist of high repute, gave Mrs. Cameron's portraits much generous praise, comparing her execution to Claude Monet's work, but the critic significantly said Claude Monet would never have taken angels with wings, etc. It is in such spurious work that the late Mrs. Cameron showed herself the amateur and imperfectly trained artist that she was. Still her portraits of Carlyle, Herschel, Tennyson, Longfellow, and Darwin have never been as yet approached, and they will always hold their own. The Carlyle is a magnificent work.

All the talk just now is of the conference, of which I shall write you in my next. Under Mr. Pringle's presidency it is sure to be a success.

Yours truly,

P. H. EMERSON, B. A. M. B. (Cantab).

Chiswick, Eng., Aug. 10, 1889.

SOCIETY REPORTS.

[Under this head we propose to publish all society matters of scientific or technical value, which are of interest to amateurs generally. Our space will not allow the insertion of mere routine matters. Reports of Field-Days, Exhibitions, etc., will be gladly received and inserted, if received previous to the 15th of each month. Secretaries will confer a favor by forwarding early reports of meetings.]

Owing to the general suspension of work by the societies during the summer months, we have received no reports of sufficient interest to warrant publication except the following:

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

Special Meeting, Tuesday, July 30, 1889.

At a special meeting of the Society on the evening above mentioned, Mr. G. D. Milburn read a paper on the new Eastman films (see page 115), and gave the first public demonstration in the East of its practical value as a substitute for glass. Samples of 8 x 10 negatives, with accompanying silver prints, were shown, which were faultless, so far as transparency, brilliancy, and freedom from spots are concerned, and furnished convincing proof of the very practical nature of the film. In spite of the extreme tenuity of the film it was found impossible to tear it. Mr. Milburn spoke of the difficulties which the Company had had to overcome in perfecting the film in order to make it perfectly pliable and yet non-curling. All the difficulties were now thought to have been overcome, and the film is so well made and evenly coated as to be in some respects superior to glass. A negative which had been exposed in the afternoon was developed and proved a success in every respect. It will be preserved by the Society as a memento of the occasion.

Mr. Milburn mentioned the fact that the pyro-soda developer was best suited to the emulsion with which the films were coated, although other developers could be used. The films do not frill, but in warm weather it is well to use a weak alum bath before and after fixing. The mixed alum and hypo bath was not recommended. Very rapid emulsions sometimes indicate, soon after the beginning of development, a slight veil or chemical fog, which does not show as strongly on the edges as in the exposed portions of the plate. In such cases it is best to continue development until the details are well out, and then to flow the film with an old developer or one containing more bromide.

Although not absolutely necessary, it is well to immerse the film in the solution of alcohol and glycerine after the final washing to obviate all danger of curling.

It is not necessary to immerse the film in water prior to development. It will adhere firmly to the bottom of the tray with only a slight curling of the corners. The developer is poured over the dry film and moved rapidly to cover the surface quickly. The corners are then pushed down under the developer and remain flat.

In connection with the demonstration Mr. Milburn showed the latest pattern of roll-holder made by the Eastman Company. It differs from the old pattern in several particulars. In addition to the regular audible clicks usually given by the mechanism, which at the same time makes corresponding punctures in the edge of the film, there is a special automatic intermittent, audible click and visible register, which sounds when one length of a picture has been wound off, at the same time puncturing on the opposite edge of the film (to that of the four puncturers) the dividing mark between the pictures. In reply to a question why the four other marks were then necessary, Mr. Milburn remarked that they aided in cutting the film off evenly. Some of the members thought, in view of the single picture division puncture now introduced, the other four marks on the opposite edge were unnecessary and confusing. The division puncture is made by a simple, yet ingenious mechanism confined partly within one of the guide rollers over which the film passes to the winding up spool.

After the demonstration, at the suggestion of the President, a unanimous vote of thanks

was accorded to Mr. Milburn and to the Eastman Company for their courtesy in bringing the new film before the society.

The President stated that he had received notice from the Secretary of the Photographic Society of France, that it had donated and would send to this Society a bust of Daguerre. As was expected, the announcement was received with applause.

Though the night was sultry and stormy, the attendance was excellent for a midsummer meeting, which, on this occasion, proved to be so instructive and interesting.

The new electric lights in this dark-room, put in and arranged under the special supervision of Mr. A. L. Simpson, were examined with interest by a number of the members and highly spoken of. Mr. Simpson also designed a special box, quickly lighted by electricity for the making of lantern slides by contact, which was in practical operation, and will be in great demand during the coming fall and winter months.

A special informal summer meeting was held on Wednesday evening, August 21st, and though the night was extremely warm, there was an unusually large attendance. Mr. J. E. Plimpton, in the absence of the president, occupied the chair. The meeting opened by Dr. J. L. Williams exhibiting and explaining a new lens called the "Paragon," made by Swift & Son of London, from the new Jena glass, which he had recently brought with him on his return from England. He had tested it in comparison with three other lenses of well known make, and found it a trifle faster and with the same relative stops to give better definition. Negatives were shown which substantiated his experiments. He also exhibited a Furnell shutter, which he had used very successfully. It fits over the front of the lens, and has two flaps, a top and bottom one. When started by pressure on the rubber bulb, the upper flap opens and flys upward, acting as a sky-shade, while the lower flap rises and cuts off the light quite suddenly at the latter end of its movement. By suitable means it is regulated to go instantaneous or slow, and if required will give an exposure of five seconds. Dr. Williams stated that he had, with a Voigtländer landscape lens, made of the Jena glass, using the smallest stop, made an instantaneous exposure with successful results.

Mr. Beach followed by showing a smaller "Paragon" Swift lens of the new glass, calculated to take in a 5 x 7 view which Dr. Williams had sent to him to test. Comparing it with an 8 x 10 wide-angle Voigtländer ordinary lens, on an 8 x 10 plate, focusing on some common object 100 feet distance, using plates of one emulsion, and drop shutter, each lens at full opening, the Swift lens indicated slightly better covering power and greater definition nearer the edges. The difference in rapidity was not specially perceptible. The Swift lens was 7 inch equivalent focus, while the Voigtländer was 7½ inch focus. Taking a Ross Rapid Symmetrical lens, covering a 6 x 5 plate, 7½ inch equivalent focus, having both lenses stopped to f-64, exposures of three seconds each were made on 4 x 5 Cramer 40 plates of the same emulsion. Both were immersed in one tray in one developer, and developed the same length of time. Result was the most detail and density in the negative exposed by the Swift lens. The same lenses were again tested at full apertures with drop shutter, plates developed simultaneously in one tray, showing a decided gain in density and detail, particularly in the center of the plate, in favor of the Ross lens. The conclusion Mr. Beach arrived at from so few experiments was that the Swift lens appeared to be the fastest when stopped down, but the Ross was quicker at full opening. Further experiments were necessary to fully determine the actual rapidity. The lens is supplied with an Iris diaphragm.

A new form of release for a drop shutter was also shown by Mr. Beach, which will probably be illustrated in a future number. Mr. G. D. Milburn explained and exhibited an improved Eastman hand camera intended to take larger pictures than the Kodak. It was fitted with finders, devices for focusing, and an improved form of shutter. Five different styles are to be made at varying sizes and prices, and will not be ready until October. The new film is to be on the market before September 1st. The two silver medals awarded the Company at Boston were exhibited.

The chief demonstration of the evening was then given, consisting of the development of plates by the aid of white light, without a dark-room. Mr. Charles Spiro, the inventor of the method, was present, and explained its working in a few preliminary remarks.

An assistant took a box of instantaneous plates of very high sensitometer, and, after placing it in the transferring device, adjusted the plate-holder, and in a few seconds the box

was opened, a plate taken therefrom, brushed and adjusted in the holder, the box closed, and the whole operation was over in less than one-half minute.

This transferring device is nothing more than an oblong frame having catches which hold the plate-holder rigidly thereto, the frame and holder being so joined that no ray of light can possibly enter. To the end side of this frame is affixed a funnel shaped black cloth, ending in a contracting band. Through this aperture the operator introduces his hand and makes the transfer, which is a very simple and easy operation. The plate-holder holds but one plate, and is so constructed that one of its sides holds the plate in position, while the other is used for the exposure in the camera. After the plate-holder is loaded it is adjusted to the camera in the usual manner, and the exposure made. It is then taken off and its reverse side adjusted to the developing device, the plate-holder forming a complete cover to the dish of the developing fluid beneath. The maintaining, or back, slide of the holder is then drawn and the plate dropped into the developer, the fluid acting as a cushion and the immersion being from one edge, and gradually though quickly covering the entire plate and subjecting it to the developing action of the liquid.

The plate-holder is immediately thereafter detached and the plate disclosed to view and its development watched. The developing device is in an ordinary dish supported on four legs about eight inches high, with a lid on top and underneath. The lower lid is fitted with a reflector and is normally closed against the dish, except when the density of a plate is to be determined, when it is lowered at an angle to reflect the rays of light through the dish and plate and so allow an examination of density to be made, without lifting the plate from the solution. These operations were watched with closest attention by the audience and formed a very interesting feature of the exhibition.

While the plate was in this new developer Mr. Spiro subjected it to the strongest light without the slightest trace of fog appearing, and the same reckless exposure it is claimed can be made, to the rays of daylight. Many negatives of the finest quality were exhibited in proof of the claim.

When the plate was sufficiently developed it was washed in full view of the audience and then transferred into the fixing dish, and after a few moments, the plate being fixed, it was washed and examined by the audience and pronounced a very fine negative of quick printing quality.

The process is patented and is controlled by the Anti-Dark Room Photographing Company whose offices are at 167 Broadway.

After two or three plates were developed, Mr. A. L. Simpson, assisted by Mr. Milburn and Mr. Vilmar, made a flash-light exposure on the audience that developed out quite successfully. The particular advantage of the improvement is that it enables an amateur to develop his plates in an ordinary room, or to test exposures when away from home. A single solution hydroquinone developer was used, and to three ounces of this one-half an ounce of the new red colored fluid called "Nuktigonia" is added, which gives the proper non-actinic color to the developer. A glass tray is employed to hold the developer. The plate is very red on the surface when removed, but the color at once disappears when washed under the tap. The demonstration was very satisfactory and altogether the members and friends were agreeably entertained.

Among the audience was Dr. John H. Janeway, an old and highly-appreciated member, who has just returned from California on a leave of absence. Shortly before ten the meeting broke up. After it the improvements in the dark-room were examined with much interest.

THE CHICAGO CAMERA CLUB.

The following description of the new rooms of the club, at No. 182 Wabash Avenue, is taken from the *Photograpic Times* of August 16th:

Upon entering the building (in the heart of the city), the elevator lands you at the door of the club. Upon entering we find a large and beautifully lighted reception hall and library-room, capable of seating about one hundred persons, carpeted and furnished throughout in antique oak. A large and well selected library of photographic literature is being constantly added to, and the walls are adorned with masterpieces of both foreign and

American amateur and professional photographic work. The gas chandeliers swing as pivots by a new device so as to be readily set aside when the room is to be used for lantern exhibitions.

An easy staircase leads from this room to the work-rooms above. The first thing which meets the eye of the visitor is a large and perfectly appointed studio with complete skylight, portrait camera and lenses and accessories. From this doors lead into dressing-rooms, dark-room, enlarging-rooms, printing, silvering, and finishing-rooms, and laboratory, where a large stock of chemicals are kept for the free use of members. These rooms are completely furnished, a regularly appointed gallery, in fact, and all contained in a structure erected upon the roof of the building, where light, air and water are abundant. The Club is meeting with great success and the members are enthusiastic and working hard to make it the most complete amateur photographic society in existence. Members of other camera clubs and photographers in general are invited to inspect our new quarters.

Editor American Amateur Photographer: MARLBORO, MASS., July 9, 1889.

Dear Sir,—Enclosed please find post-office note for $1.50 for your publication, to begin with No. 2, Vol. I. Our Camera Club have the first number, and like it very much. I send you the following information regarding our club:

H. C. Russell, President; Alfred Howe, Vice-President; Herbert E. Pratt, Secretary; Frank S. Wood, Treasurer; J. F. J. Otterson, Librarian. Regular meetings first Tuesday in each month. Club meets at the homes of members.

Yours respectfully, J. F. J. OTTERSON,

Librarian, Marlboro Camera Club, Marlboro, Mass.

NEW ORLEANS CAMERA CLUB.

This Club has held its regular monthly sessions and is reported to be in a very flourishing condition. The movement to secure commodious club-rooms, equipped with all the necessary conveniences for experiment and regular work, is rapidly taking shape, and the Club hopes to be in its new quarters by October 1st. In order to meet the expenses of the change the membership will probably be increased to two hundred, and one hundred $20 bonds will be issued to the members. There can be little doubt that these measures will prove successful, and that the Club will soon be in possession of rooms better suited to its needs than its present quarters.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.

From our special Pacific Coast correspondent we learn that at the regular monthly meeting of the Association, held on August 8th last, the contemplated changes in the constitution, admitting professional photographers to membership and permitting members to sell their work under certain restrictions, were not adopted. The constitution is unchanged.

At the close of the business discussion a very entertaining lantern-slide exhibition was given, comprising views of the Johnstown catastrophe, the Centennial Naval Parade in New York, and views of bull fights and of flashes of lightning taken in Guatamala by one of the members recently returned from that country.

BOOK NOTICES.

Traité Encyclopèdique de Photographie. By M. C. Fabre. Paris, 1889. Gauthier-Villars et Fils. Pp. 81—160; 2 fr., 50c.

The eighty pages of the second installment of Dr. Fabre's monumental treatise on photography contain descriptions of all the noted makes of lenses of the various forms, and well sustain the claim of the book to be an encyclopedia of photography. If the remaining parts of the work are as fully and carefully written as the two which have come to hand,

the Traité Encyclopèdique will long remain the most exhaustive photographic treatise published. We advise those of our readers who are conversant with the French language to subscribe for the work, which will be completed in four volumes in twenty monthly parts. The subscription is 40 francs.

From Messrs. E. & H. T. Anthony & Co., New York, we have received a copy of their edition of Wall's Dictionary of Photography, which was noticed in our last issue. The book is well printed and attractively bound, and is published at $1.50. The book is undoubtedly a useful one, but we think that a better one for American readers could have been compiled in this country. And why should a book which is published in England at sixty cents, be valued in this country at $1.50?

OUTING, the Magazine of Sport.

Leading features: hunting, camping, fishing, cycling, base-ball, driving, athletics, yachting, canoeing, boating, foot-ball, etc., all winter and summer sports. Terms, $3.00 yearly; single copies, 25c.; specimen copy, 10c. Published by Outing Company, limited, 239 Fifth Avenue, New York.

List of Dark-Rooms Open to the Use of Amateurs.

LURAY INN—*Luray, Virginia.*

PROSPECT HOUSE—*Blue Mountain Lake, Hamilton Co., New York.*

HIGH FALLS HOUSE—*Dingman's Ferry, Penn.*

THE STANLEY HOUSE—*Lake Joseph, Muskoka, Ont.*

CASCADE LAKE HOUSE—*Adirondacks, N. Y.* Large dark-room with running water and a safe light. The proprietor, Mr. J. M. Otis, has long been a friend to the wandering amateur and will do all in his power to make a visit to Cascade pleasant and profitable.

HOTEL CORONADO—*San Diego, California.* Said to be the finest hotel in California. The dark-room was constructed under the special supervision of Mr. A. S. Murray, formerly the President of the Pittsburgh Society of Amateur Photographers, and is lighted by electricity, provided with spacious lockers, and fitted up with electric annunciators from the hotel office.

THE RAYMOND—*East Pasadena, California.*

SAN MARCO—*Santa Barbara, California.*

DEL MONTE—*Monterey, California.*

SPENCER HOUSE—*Niagara Falls, New York.*

SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*

FORT WILLIAM HENRY HOTEL—*Lake George, New York.*

PROFILE HOUSE—*White Mountains, New Hampshire.*

THE WESTPORT INN—*Westport, New York.* Has a dark-room with running water.

BREEZE LAWN—*Hunter, New York.* Has a dark-room with running water.

[We shall be obliged if our friends will send us the names of other hotels or houses that have special dark-rooms for the use of amateurs.]

United States Photographic Patents

ISSUED IN AUGUST, 1889.

AUGUST 6th.

408,451—Roll Holder for photographic cameras; E. B. Barker, New York, N. Y.

408,596—Camera; George Eastman, Rochester, N. Y.

AUGUST 20th.

409,507—Stripped Negative; F. Schmalz, New York, N. Y.

409,618—Photographic Developing Bath; Charles Spiro, New York, N. Y.

PUBLISHERS' DEPARTMENT.

[In justice both to ourselves, and to those firms whose specialties are mentioned in this department, we desire to state that we neither ask nor receive compensation for such notices as are given. Any dealer or manufacturer who sends us samples of goods for notice will receive just what the merits of the goods deserve, no more and no less. Any apparatus sent us for trial and notice will be returned if so requested. This department is maintained in the interests of our readers to whom timely notice of novelties may be valuable.]

A decidedly good thing is Hale's "Dry Plate Yellow Stain Eradicator and Hypo Eliminator." We procured a sample at the Convention and have tried it on some old, badly discolored negatives of uncertain age. The yellow stains disappeared as if by magic, and we now rejoice in the resuscitation of some valued negatives whose printing qualities had been almost entirely destroyed by dry-plate jaundice. We have not tested its value as a hypo eliminator, but shall do so and report results.

Another very good thing which we picked up in our wanderings about the exhibition hall was a bottle of Barker & Starbird's "Our Own" Hydrochinon Developer. As a rule we are not partial to proprietary medicines, even for dry plates, but we have the courage of our convictions, and when we find a good thing we shall have no hesitation in recommending it, from whatever source it emanates. As a good Bostonian we are proud to say that "Our Own" developer amply fulfills the promise of its compounders. It develops quickly, cleanly, and well. Its staying qualities are remarkable. The firm had a bottle of it on exhibition in which twenty-nine 4 x 5 and fourteen 5 x 8 plates had been developed, and the six ounces of developer was still clear and active. Mr. Starbird, who originated the developer, stated that he spent six weeks experimenting before he hit upon a satisfactory combination. Now if he would sacrifice his private gain to the public good, and make his formula known, he would earn the lasting gratitude of all amateurs.

We had the pleasure of inspecting the reading-room and dark-room of Messrs. Barker & Starbird, and found them very well equipped and a credit to the business enterprise of this young firm.

A compact and convenient ruby lamp is the "Student," manufactured by J. A. Knorr, 51 Franklin Street, New York. The lamp comes in two styles, one burning a candle, and the other fitted with an oil burner. We have tried the former and found it perfectly safe for plates of high sensitiveness, if proper care be taken not to expose the plate unduly to the direct rays.

We cannot refrain from speaking a good word for the diaphragmatic shutter manufactured by Bausch & Lomb, Rochester, N. Y., which seems to us to come about as near perfection as any piece of mechanism can. It admits of every variation in the diameter of the diaphragm, can be set for any rate of speed, or used for time exposures. It forms its own diaphragm, and for compactness and beauty of workmanship it is simply unapproachable. It seemed to us too delicate for hard use, but the manufacturers assured us that they had no complaints on that score from those who have used them.

One of the most compact optical lanterns is the "Ives' Folding Optical Lantern," which, while containing all the essentials of a first-class instrument, is so compactly made that it can be quickly packed into a box 8½ inches long, 6 inches wide, and 6½ inches deep, and weighs only eight pounds. The gas jet is adapted for burning either the oxy-hydrogen, oxy-ether, or oxy-gasoline forms of light, and the lantern is so constructed that a kerosene lamp can be used when desired. The lantern is manufactured and sold by C. T. Milligan, Philadelphia.



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"THE HEART OF THE FOREST."

THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., OCTOBER, 1889. No. 4.

Our Illustration.

WE give this month another of the Philadelphia Exhibition pictures, Dr. Charles L. Mitchell's "The Heart of the Forest," representing one of those subjects which only the skilled photographer can render successfully. Here the light falls tenderly athwart the tree trunks and there is just the right proportion of deep shadow to give the sense of quiet solitude which we instinctively associate with the "Heart of the Forest." The block was made for us by the Boston Photogravure Co., who also made the five small blocks which have been used to illustrate two of our articles.

Lenses.

A CORRESPONDENT asks the meaning of such expressions as "depth of focus," "focal length," "equivalent focus," etc., when used with reference to photographic lenses. Although these matters pertain to the A, B, C of photography, we take pleasure in answering them to the best of our ability in the hope that the information may be useful to photographic novitiates like our correspondent.

Any one who has ever focused an image on the ground glass of the camera is aware that when the lens is at a certain distance from the focusing frame, one or more planes of the view are sharply defined. In the case of a single lens the distance between the ground glass and the lens is the "focal length," that is, it represents the length of one of the conjugate foci of the lens, the other being represented by the distance between the lens and those parts of the view which are in focus on the glass. The relation between the two conjugate foci is constant. As the one lengthens, the other is shortened. This explains why the lens must be racked out further to bring an object ten feet away into focus than one one hundred feet distant.

The same principle also explains the reason why all the objects in a landscape can not easily be brought into equally sharp focus. If the foreground is sharply defined, distant objects are probably more or less blurred, especially when a large stop is used.

Properly speaking a lens has no depth of focus, that is, it can render with equal sharpness only objects lying in the same plane. But as a matter of fact and practice, photographic lenses are so corrected that they are capable of giving a fair average focus to objects in different planes. The capacity for doing this is called "depth of focus," and it differs in different forms of lenses, the portrait lens having least of it, and a properly corrected rapid rectilinear the most.

The focal depth of any lens can be increased by the use of smaller stops, which has the effect of shutting off the marginal rays, and so increasing the defining power of the lens.

The term "equivalent focus" is only used of compound or doublet lenses. It is the focal point of parallel rays entering the lens. It is so called because the image formed at that point equals in size that formed by a single lens. The true point of measurement for the "equivalent focus" lies between the diaphragm and the back combination, but in practice it is usually measured from the diaphragm slot. A sufficiently accurate method of determining the "equivalent focus" of a lens is to focus on an object over two hundred yards distant, and measure the distance between the diaphragm slot and the focusing frame.

At another time we may discuss the meaning of other terms used in connection with lenses.

Canoe and Camera.

BY F. A. HETHERINGTON.

TWO days is rather a limited period of time in which to make a photographing trip, especially if the objective country be unusually rich in motives. It was all the time that remained of my vacation, however, and when my friend proposed a canoe trip down the Tippecanoe I could not resist the temptation, for my friend is an artist as well as an enthusiastic fisherman and photographer, and in regard to matters of scenery his word always "goes." I had also read his account of "Canoeing on the Tippecanoe" in the April number of *Outing*, and was, therefore, primed to fall immediately in with the scheme.

The two days aforementioned also included two nights, and in these days of rapid railroading what may we not accomplish in two days and two nights?

For the benefit of the uninitiated I will explain that the Tippecanoe

River is principally within Pulaski County in the northern part of Indiana, and is more or less famous in the tales of the Indian warfare of the past.

Eleven o'clock Wednesday night found us in the station at Indianapolis on board the northern bound train, comfortably ensconced in two seats in the smoker and completely surrounded by a barricade of fishing rods, immense sample cases,—which I afterward found contained about all of the complete assortment of trays and bottles in my friend's laboratory—and in the safest corner our two cameras, a Scovill detective, and my own magazine hand camera.

Between sleeping and waking, smoking and being smoked, we passed most of the night, and rumbled into the little town of Winamac just as day gained victory over night and the town clock was striking five. With the instinct common to both photographer and fisherman we glanced at the heavens and were thankful for the promises of a fine day. The racket of the receding train soon died away up the road and nature resumed her wonted quiet. The frogs began their morning gossip, and were evidently discussing among themselves the purposes of our visit. The hostlery was within sight, and with the aid of a kindly native our traps were soon deposited inside of its outer doors. After a good wash at the pump we strolled down to the near-by river to wait until the noisy cock in the inn-yard should succeed in convincing the drowsy town's people that it was really morning.

What finer or purer sensation is there than that which comes over one as from woody banks he contemplates the early morning beauty of a small river? Everything hushed as death, even the swirling eddies make no sound, and the richly-foliaged trees stretch long arms out over the water in silent expectancy awaiting the signal, perhaps the bugling of some bird, that shall start their tassels dancing in the first breeze of the morning. A thin white mist is gradually lifting in places, and an ill-visaged tramp arouses himself, and half sitting, half reclining, gazes down the view—we would like to photograph him, but there is not yet light enough, and the cameras are at the inn, and beside this, I feel that the only way to get him would be at the point of a revolver; he is large, tattered, and villianous looking; we will not make the attempt.

As we sit thus silently, neither caring to break the quiet, there is a sudden splash near us and a flash of silver; hardly has the water become calm again than it is repeated simultaneously in two places. The bass are rising, and the baser instinct asserting itself over the ethereal, we retrace our steps, get our rods, and have fine sport until eight o'clock, when, tired of fishing, we get to the inn and eat a genuine hoosier breakfast of salt ham and fresh eggs.

After breakfast we spend a couple of valuable hours in attending to preliminaries. I institute a vain search for a small boy with minnows to sell, and finally content myself with digging a can of worms; a last resort. Tom

secures a canoe somehow, and leaving all but cameras and rods we head for the river. Not a plate has yet been used, for we feel that we shall meet with better game.



THE ISLAND.

We embark at the foot of a bridge and at once find two motives. I get a view down the river with a bit of old stone wall for a foreground, and also a capital little picture of a skiff moored to the bank in which is a small edition of "Tom Sawyer" with a bit of string tied to a switch, fishing for anything he can catch; in the stern sits his younger sister watching the float as intently as himself. The first I expose with my lens set to universal focus, and the second I estimate twenty feet and focus accordingly. Both come out well. We launch our canoe into the swift water, and soon a bend shuts out all sight of Winamac; Pulaski is our goal, and it is between eleven and twelve miles down the river. Soon a mile has gone by and we are floating close inshore under the shade of heavy foliage; close to the bank is a primitive sort of skiff or scow, and in it two or three fishermen. The light is quite poor in this shade, but I have a Cramer 50 next in my magazine, so I fire away. I find that this negative is clear cut and sharp, but my shutter has been too quick for it; still, it makes a good point and will pass. The water of the Tippecanoe is dark brown or red, and this is fatal to successful photographing in the shadows.

Bend after bend is passed and innumerable islands. They are all much alike, so I am content with but capturing one. This is made on a Cramer 50 and is one of the most beautiful negatives I get. The sun is wonderfully bright, and I have a haunting fear that my shutter is too slow, yet find I have nerve enough to leave it alone. Swifter and swifter has grown the current until at this point it requires our united efforts to keep the frail vessel off the half-sunken rocks of the old Indian fish dams. We pass many beautiful motives, and at the risk of a ducking I drop the paddle and try a shot at some great sycamore trees that form a graceful composition of lines; about one-third of the lower part of this plate contains an exaggerated view of the top of Tom's hat and one ear, an entirely unlooked-for foreground.

We round another bend, and an exclamation from my companion causes me to look up, and there on the right bank is one of the most perfect pictures imaginable. Half hidden in the foliage is a deserted cabin nestling beneath two giant trees, one in the full verdure of its prime, and the other with immense bare arms reaching out in picturesque lines towards us, the bleached boughs relieved sharply against the dark green of its fellow. A tumble-down door still hangs to the jamb as though loth to break forever their long partnership. But we are rushing quickly past, and each grasps his camera and yells to the other to stay the canoe against the current; neither is magnanimous enough to sacrifice the opportunity, but in a moment more we have compromised and both lay lustily to the paddles to regain the lost position, and when there I steady the canoe while Tom, standing upright, makes his exposure. Then it is my turn and in another instant we are again past and on our downward way.

Every circumstance was favorable in this case; the lighting of our motive was just right and the composition perfect; I felt sure that each had secured a good negative. Such proved the case, and both were fine with this exception; covering the best portion of my friend's plate was an enlarged image of the end of my paddle. I feel that I am avenged for losing the sycamores. My own negative is among the finest I ever made. For four long hours the sun had been beating furiously upon us, and although I had done most of the paddling I was fortunate in having his Solar Majesty at my back; not so my companion. Occasionally I noted the many changes occurring in the hue of the end of his nose, the only portion at which the sun had a fair chance; the end of the first mile it assumed a delicate pink hue, like to the first ripening blush of the pippin; from this tint it gradually deepened until it had become a beautiful non-actinic red, "a perfectly safe light to develop by"; alas, why did we burden ourselves with a ruby lantern. Honesty now compels me to state that a few hours later my own proboscis was of sufficient brilliancy to make the aforementioned nose cast a pale shadow.



THE CABIN.

A lunch at one o'clock on the river bank by a delightful spring in which dwells a jolly green frog, and we re-embarked for the final voyage. I had started with twelve plates in my magazine camera and five were already exposed. The sun had gone past the meridian and we became more anxious to reach Pulaski than to make photographs. We decided that it would be wise to save the remaining plates for especially fine motives. I think that I required more strength of purpose to keep to this resolve than did my companion, for while he had to manipulate seemingly innumerable buttons, springs, holders, slides, etc., in his Scovill, I had only to press the shutter button to secure my picture. For this reason I once broke my resolve and secured an especially beautiful woody point of one of the innumerable bends. For the three and one-half following hours there was but a succession of charming bends, and at 4.30 we hauled our little craft high and dry at the dam of Pulaski. Here we get a clump of fine trees that grow close by the lock, and then set aside the cameras and take up the rods, for the bass are frolicking in a most lively manner in the foaming water at the foot of the dam. After two hours' successful fishing we have a respectable string of bass, and although we are known as peaceable and veracious citizens it was decided that we would strengthen our position by being able to produce a picture of the man "and his fish," so we do this little act of kindness for each other; each photographs the other, but alas for human precautions, it has since been intimated by scoffers that although there are two fishermen, there is but one string of fish—to these my answer is scornful silence.

Presently we are warned of the approaching night. The bass no longer rise, and the lazy lumbering of a wagon is heard in the distance. It is the team from Winamac that has come for the canoe, for no one in his senses would think of taking a canoe up this stream by water.

An irresistible desire to get to the inn and develop our plates now takes possession of us, and we contemplate the awkward vehicle in despair, for we realize that even at the best possible pace over the sandy roads we cannot get to Winamac before midnight. But fortune and our own assurance helps us, and we are taken into a frail side-bar buggy which happens along, and behind a pair of wild and almost unbroken horses we disappear in a cloud of dust towards Winamac. The cameras are held between our knees, for both hands are engaged in hanging on to anything that enables us to remain on the right side of the madly careening vehicle. It is evident that our friend who handles the ribbons expects to terrify these city chaps until they cry mercy, but he has made a mistake, and we only set our teeth harder that we may not bite off our tongues. Neither are we particularly reassured as we dash like a cyclone past a gaunt specimen of the hoosier farmer at hearing him shout "Sa-a-a-y boys! Do ye know who ye 're ridin' with?"

"Winamac at last, thank goodness," and Tom remarks to our driver, "My friend, you make a mistake in having four wheels to your rig; two is all you use." But he turned out to be a good fellow, as we had guessed,

and having evidently had some fun at our expense he would accept no further reward, and without a word wheeled round again and dashed up the road, leaving us at the door of the "hotel."

After a good brushing, a bath, and supper we feel better, but after some discussion give up the idea of doing any developing, for a certain drowsiness begins to weight our eyelids, and feeling that we cannot afford to give these plates a hurried and chance development we smoke a cigar or two and then retire to our room to change plates for the morrow.

At this point my companion produces from one of the sample cases a mysterious black cloth affair resembling a woman's skirt with the small, or waist, end entirely closed. In the top are two sleeves reaching inward, and as he arranges his plate boxes and holders upon the floor and settles this skirt down over them a light dawns upon me. It is a changing bag; "lights out" is the order, so lighting my small ruby lantern and thanking my stars that I have no bother of plate-holders I "douse the glim." I find that quite a glow of diffused gaslight comes in through the transom over the door; also that my ruby lantern leaks light in all directions. It is one of those miserable, thin, flat, round-topped, jaundiced colored affairs, having an oil lamp, and I sigh for my far away little candle lamp with the ruby chimney. "Necessity is the mother of invention," and in this extremity I surround the lantern with towels and cards and slide the cover from my camera. In four minutes the twelve exposed plates are out and twelve fresh ones in their place; the cover slides in with a click, and blowing out the lamp I am almost immediately sound asleep, leaving my companion fumbling in his changing bag and envying me my pet magazine camera.

So ended the first day. In the morning we were up bright and early, and chartering a team for the day we were soon again at Pulaski, and the day was well spent in fishing and photographing. A few pictures were made along the road, one of the motives being unusually good. A hay-wagon with horses, standing in the clover field and being loaded with fragrant clover; just the sort of a picture that a painter of the old Dusseldorf school would rave about.

At noon we dined at a cottage that was a perfect type of a hoosier country home. Heavily foliaged grape vines covered the spacious arbors, and one side of this delightful place was well grown over with roses, such as I had not seen since the days of boyhood, and I remembered James Whitcomb Riley's "Old-Fashioned Roses":

"They ain't no style about 'em,
And they're sort o' pale and faded;
Yet the door-way here, without 'em,
Would be lonesomer, and shaded
With a good 'eal blacker shadder
Than the mornin'-glories makes,
And the sunshine would look sadder
For their good old-fashioned sakes."

Ah, if the lines of one's life were only laid in such a rustic nook as this; to sit forever in the shade of these old-fashioned roses and be far from the world, so busy with its electric motors, phonographs, and flying-machines.

Here is a ready made illustration for this charming dialect poem, and we each expose two plates upon it, Miss "Nan" kindly agreeing to pose for the necessary figure.

As we again saunter down to the river we pass a typical group of Pulaskites seated around the doorway of the Pulaski tavern, we capture them as we go by, and then expose a couple of plates at the old willow-surrounded mill, and after a little more fishing we are again on the road to Winamac. This time behind a more sedate pair of horses in the hands of a perfectly safe driver. Arrived at Winamac we eat a well-earned supper and carefully pack up our traps; the unused trays, bottles, etc., are stowed away, and we wish we had not burdened ourselves with them.



OLD FASHIONED ROSES.

I will hastily skip the account of our return trip with its incidents, and simply state that eight o'clock the next morning found us stripped to the waist in my friends commodious dark-room, he at one end of the long sink and I at the other, each with his pet developer at hand, and the thermometer on the door jamb registering ninety-five degrees. What a day of sweltering hot work that was; how we managed to develop all of those plates without frills is past my understanding, but finally all were finished, and the feeling of elation as we contemplated the long row of successful negatives drying in the stable so far overcame our exhaustion that we were jolly as school boys. Only a few of our plates had turned out badly, and some of them were spoiled by our own carelessness in standing them to drain in a place to which the flies had free access, for wherever one of these summer pests manages to get to work with his jabber upon a wet gelatine film there will soon be developed a lot of circular transparent spots much resembling overgrown pin-holes. Another day of hard and hot work, and a fine lot of lantern slides stood upon the drying rack.

The next evening our friends had the pleasure of accompanying us again over the course of the Tippecanoe from Winamac to Pulaski, enjoying the pleasures of the beautiful along the way without any of the, to them, discomforts of blistered noses and tender hands. But what true lover of nature is there who would not be proud of these marks of the favor of old Sol, when won in such a cause?

Photo-Micrography.

IT is the purpose of this series of papers to convey some information, which shall be of practical value to those who wish to engage in photo-micrography. But, before entering directly upon the subject, it may be well to give a few hints with reference to the preparation for the microscope of objects suited to the general purposes of photography.

Of course any object that can be seen under the microscope can be photographed; but not all such would be of sufficient interest, except to specialists, to justify the time and labor and expense requisite to accomplish this end. Experience, however, with the larger objects will eventually lead one on to finer work. Hence it is best for beginners to take some of the larger objects, as insects, leaves of plants, parts of insects, or sections of leaves and stems of plants. Very interesting slides of amœbæ, desmids, algæ and infusoria may be prepared on this wise: From a small hoop, suspend at intervals a number of the American clip clothes-pins. Into each of these pins put two glass slides 3 x 1 inches, back to back. Then fasten over the top of the hoop a piece of board of sufficient size to float it, and put the whole thing into the water of some brook or pond or pool, leaving it there for a time, the length of which will depend upon experience; or bring some water from the pond, or pool, to the house, and putting it into a dish lay the slides in it. Often by washing the under surface of the leaves of the pond lily, or squeezing the water from algae, into the dish, many microscopic forms will be obtained. From time to time examination may be made, and it will be found that many beautiful low forms of vegetable and animal life have attached themselves to the surface of the slides. After draining off the surplus water, take a drop or two, as necessity requires, of aniline blue, water solution, and putting it onto the end of the slide let it flow the length of the slide, as it will easily do if the slide is canted a little. The next step is to drain off the surplus stain by inclining the slide to a piece of blotting paper. Place the slide under the microscope and it will be found that everything has taken the blue color. Looking over the slide carefully one will readily see which portions of it are the richest and the most desirable to retain. On the portions thus selected, put a drop or two, as needed, of glycerine, and cover with cover glass. If it is desired to

make a permanent mount, a ring of cement or black varnish can be run around the cover; but without this the slide will keep for a long time. In this way a great many of the interesting and beautiful forms of water-life may be prepared for the microscope and for photo-micrography.

There is here an almost boundless field for investigation and study. By careful work, passing on from the coarser or larger forms, one may, as he increases in skill, come to the study of the very beginning of life, and, at last, with the aid of his camera, secure for lantern projection the images of things now seen only by the diagrammatic figures of the text-books.

There are few, if any, microscopic objects of greater beauty than the fossil diatoms. Of course those who use the microscope are probably furnished with slides of these, even though they may not be expert in the preparation of them. Some of the readers of this article are undoubtedly old hands in the use of diatomaceous material. If one does not wish to prepare his own slides, he can buy or borrow slides for the time being; or, if he wishes to prepare slides of his own, but does not care to follow out the sometimes tedious detail of cleaning the "raw material," he can purchase some already prepared and kept in alcohol of low per cent. After shaking well the contents of the phial, place a drop of the fluid on a glass slide. The alcohol will quickly evaporate, leaving the diatoms spread out evenly on the glass, if the fluid has not been too thick. The next thing is to put a drop of Canada balsam on it and cover with a cover glass.

Small insects and parts of insects make an interesting collection for photo-micrography. If it is desired to photograph simply the shell and hard membranes of the insect, the first step is to put the whole insect into *liquor potassae*, which will dissolve out the soft parts. The next step is to wash thoroughly in soft water. By putting the insect into a small bottle of water, one can wash by gently agitating the water. If the contents of the shell of the insect come out slowly, a little pressure with a needle will aid much, though care must be taken not to pierce or break the shell, or injure the wings, or antennæ or legs. After washing and re-washing, transfer the insect to alcohol to extract the water. If one is preparing several insects at the same time, a bottle containing an ounce of alcohol can be kept on hand for this purpose, and from it one insect at a time can be placed in a little fresh alcohol in a watch crystal or other small glass. From the alcohol transfer to oil of cloves, or carbolic acid, *water* solution, to clear it, or make it transparent. Then put it on the slide. Carefully lay the insect out so that the wings and legs and antennæ will be in proper and neat position, after which the Canada balsam should be put on and the cover glass applied.

But many of the smaller insects may be prepared with the organs and muscles *in situ*. In this case the insect, or part of insect, is put into alcohol to extract the water, then put into carmine stain until stained, then transferred again to alcohol, and from alcohol to oil of cloves, or carbolic acid, water solution, then mounted in balsam, as stated above.

The antennæ and plumes and scales of insects, weapons of defense, and instruments of work afford a great and beautiful variety of objects for photo-micrography. These can, with a low power dissecting microscope, be detached from the insect. In lieu of a regular dissecting microscope, one can get along very well with a watch-maker's glass, kept in place over the eye by a wire bent so as to hold on to the head. Having dissected out the parts one wishes to photograph, he must place them in alcohol to extract the water; from alcohol he may transfer to carmine stain; then wash again in alcohol, then place in oil of cloves or carbolic acid, to render transparent, then place in suitable position on the glass slide. The balsam is then to be applied, the cover glass put on, and the mounted object laid aside for the balsam to penetrate and harden.

A great variety of beautiful objects may be obtained for photo-micrography by taking the skin of leaves, or whole leaves of microscopic plants, or sections of leaves and stems of plants. The skin may be detached, placed in alcohol, transferred to carmine stain, washed again in alcohol, cleared, or rendered transparent in oil of cloves, or carbolic acid, and then mounted in balsam.

Sections of the leaves and stems may be made by means of section cutters. Of course those who use the microscope much will probably have on hand such an instrument. But one can sometimes get along fairly well with a sharp razor. A little practice will enable him to cut a thin section of the stem, or ovary, or fruit of the plant. If the object is too small, or thin, he can place it between two pieces of the pith of the elder, or of the pith of a corn-stalk, and grasping it firmly with his fingers, cut a thin section of the pith with the included leaf. The hairs on the leaves of plants furnish some very beautiful objects for the microscope and thus for photo-micrography. These hairs may be detached and put through the usual process already described, or they may be mounted as opaque objects, to be photographed not by transmitted light, but by reflected light. Indeed there are a great many exquisitely beautiful microscopic objects, which on account of thickness, or the impossibility of making them transparent, must be mounted as opaque objects, and photographed, if photographed at all, by reflected light. But a careful following of the directions, as given above in the collecting and preparing of material for the microscope, will lead on both to the discovery of new material, and to the invention of new methods, thus opening to the persistent man a world hitherto invisible.

REV. F. T. HAZLEWOOD, D.D.

The Joint Photographic Exhibitions.

The scheme for Annual Joint Photographic Exhibitions, which has been on trial during the last few years, by the three most prominent photographic organizations in this country, has thus far been most successful in operation. Each exhibition has been more complete and interesting than its predecessors, and each has shown a marked improvement in the work exhibited. Being entirely free from all commercial influences and seeking to encourage photography for itself alone, the *best work* from all sources—whether amateur or professional—has been sought out, brought together for comparison and rewarded when found worthy.

On each occasion the most deserving exhibits have had full recognition by awards sufficient in number for the purpose and not so numerous that their value would be depreciated from this cause.

The Joint Exhibition Council have wisely determined that no other class of awards shall be given than their official diploma, rigidly declining all "special prizes" offered by outside interests more or less desirous of "axe grinding." If this course is maintained in the future, the awards will come to have a greater value each year, the fortunate winners being recognized as the foremost "artists in photography" of their day.

Thus far the Societies interested have only seen their way to offering *diplomas* for the best specimen of photography submitted. The experimental stage having now been passed, it is hoped that the suggestion of the adoption of a suitable *medal* for the purpose will be carried out.

The rules, etc., in use for the recent exhibition in Philadelphia seem to be very satisfactory on the whole and certainly worked well for that exhibition. Practically no serious complaints reached the ears of the committee of arrangements and it is believed that both exhibitors and visitors were satisfied with their operation.

A limited classification scheme was adopted with a view to simplifying the work of the Judges but the distribution of most of the awards—eighteen out of twenty-five—was left to their discretion. If *all* the awards had been so distributed, no classification at all having been attempted, it seems to the writer, that a greater equality in the value of the awards might have been maintained with perhaps rather more fairness to all concerned. As it was, two classes of diplomas were established, those for "special excellence" being naturally considered of higher value than those given simply for "excellence."

In reality, however, the "specials" were awarded to certain pictures simply because they were the *best of their kind*, while the ordinary diplomas were awarded to work which had successfully met "all comers" without regard to any limitation of class. Looked at in this light *some* of the eighteen, with ordinary diplomas are more to be congratulated than *some* of

those who received "special" recognition. With a more extended classification this anomally would have been greater, but with none at all it would not have existed.

At some of the English exhibitions it is now customary to forbid the name of the photographer to appear on the front of the frame, so that the Judges may not be unduly biased in favor of some well-known names. Have the advocates of this rule not recognized the fact that there is an *individuality* in the work of many of the best photographers almost as decided as with painters? Judges are selected from those most familiar with photographic art. Is it supposed that such persons are not perfectly conversant with the style of Robinson, Emerson, Gibson, Sutcliffe, Wood, Bartlett and many others, though their names are turned to the wall on the back of their respective frames? Again, to be of value, this rule should be supplemented by one requiring that no picture should be exhibited which had previously seen the light of day except in a painting frame. The best pictures have generally been shown *somewhere* previously, and if remarkable, have been more or less talked of or written about, so that with some, at least, of the pictures submitted to a board of judges they are already familiar and the artists are equally well known whether their names appear or not. Hence, unless judges are selected on account of their *un*familiarity with photographic matters, why not allow the artist's name and his work to be unmistakably associated.

One of the greatest incentives and helps to work of the highest class, is that we should see for ourselves what the best workers of the world are doing. The knocking away of a man's conceit helps wonderfully towards improving his work, if he is really capable thereof. For this cause and for the friendly rivalry and interest involved, foreign exhibitors should be made especially welcome. As soon as the date of an exhibition can be approximately fixed, (and this should be four to six months in advance) circulars with general information should be sent to photographic societies in all foreign countries, requesting that exhibits be forwarded immediately (unmounted, if pictures are large) to be arranged and formally entered in accordance with final rules by the exhibition committee. In this way many most valuable foreign exhibits might be obtained which otherwise could not arrive in time. No wall space or other charges should be made on foreign exhibits, nor should framing be required, except at the expense of the society holding the exhibition. Our foreign friends should be considered honored guests and the best position on the gallery walls reserved for them.

"Champion classes" are a recent innovation abroad. very well in theory but hardly desirable in practice. Their tendency must be to make prize winning by mediocre work easier, and unwisely to handicap the best work.

The producer of a new picture of high merit fears to send it to certain exhibitions of minor importance because if awarded a prize, he is debarred

from exhibiting at some more important exhibition, except in the champion class. Hence a good picture is lost to an exhibition which it would have helped, and a prize, lessened in value by the circumstance, goes to second-class work. Much fine work under this system would only be exhibited once and in one place, and its value as an educator and an incentive to improvement lost.

A coldly critical public is invited to visit our exhibitions and is only interested in the *best work of the day*. The circle of personal friends of exhibitors is comparatively small and they alone will make allowance for "good enough" work, "very nice for an amateur," etc. The winning of a prize, however, at an exhibition of sufficient importance to seek the patronage of the general public, should be a difficult matter attainable only by pictures of undoubtedly the highest merit, and to such, as "Victors," belong "the spoils."

In conclusion, exhibitors should remember that the task of committees and judges is an arduous one, generally involving the sacrifice of much valuable time and it is rarely that both do not strive, most conscientiously, to do their full duty. Rules are adopted which are intended to work to the highest advantage of all concerned, with a view to elevating the standard of photography and rewarding those who most fully deserve such recognition. The regulations should always be carefully studied and strictly followed. Favors and exceptions should not be asked and complaints, unless undoubtedly well founded and on important grounds, should not be made. Any divergence from this course greatly hampers the work of a committee, discouraging their unselfish efforts and detracting more than might be supposed from the smooth working and ultimate success of exhibition management.

ROBERT S. REDFIELD.

THE

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EDITORIAL COMMENT.

We take a reasonable degree of pride in the appearance and make-up of our present issue, and we think justly so. It is not often that a photographic journal presents so many illustrations in a single number, or such a varied and valuable list of articles. This is but a foretaste of what we hope to do in the near future, if the support we receive will warrant the expense. Our aim is to make the AMERICAN AMATEUR PHOTOGRAPHER *the* magazine for amateurs. We pledge ourselves to leave nothing undone that will improve the magazine and make it more valuable. In return we venture to ask the support of American amateurs. If each one of our rapidly increasing list of subscribers will secure one subscription besides his own we shall be a long step towards the goal of our desire. Many have already done much more than this. We would also ask our friends to send us the names of persons who would be interested in receiving a specimen copy.

We invite the attention of those of our readers who are interested in the fitting up of club-rooms to the full-page plan of the new rooms of the Blair Camera Company at Chicago and the accompanying sketch. The rooms are models of completeness and convenience, and a study of the arrangement will prove helpful to those who may have improvements and changes in charge.

We learn that the members of the Photographic Department of the Brooklyn Institute intend to make some improvements in their rooms. These will include the fitting up of a new laboratory and dark-room and the addition of a reading-room.

Two of our American annuals for 1889 are well under way. Dr. Wilson's "Mosaics" will appear earlier than usual, and the editor is working hard to make it better than ever before; no easy task, one would think, in view of the excellence of recent issues. The publishers of the *Photographic Times'* "Annual" announce that it is already well in hand and that it will appear about Thanksgiving time, a very appropriate season for the appear-

ance of a publication which has caused so much thanksgiving among American photographers.

Mr. R. G. Wilson, of Philadelphia, writes us that he has used Carbutt's hydroquinone developer with perfect success on Carbutt's Eclipse plates, the negatives coming out clear and strong with an abundance of detail. Mr. Wilson encloses a blue print from a negative of a steamer taken with the Hawkeye camera and developed with hydro. The print is sufficient proof of the value of the hydro developer.

We call the attention of our New Jersey readers to the following extract from the *Nation:* "The final report on the geology of New Jersey of the State Geological Survey, now in course of publication, has, as our readers know, a completed first volume. For the second, it is in contemplation to illustrate the botany of the State, in connection with full lists of minerals, plants, and animals. The finer shade and timber trees are to be figured, and it is quite possible for amateur photographers, whose name is now legion, to assist the survey materially by the loan or gift of prints of notable native trees, with the necessary indications as to name, place, etc. They may be addressed to Prof. George H. Cook, State Geologist, New Brunswick, N. J."

According to the *Boston Herald* the Albany Camera Club has a rule which it would be well for other clubs to imitate. All negatives made in the club are at the disposal of the members, a feature which enables any member to obtain prints from the negatives of other members.

Mr. Marshall Cutler, of Boston, recently sailed for Havre. Mr. Cutler is an ardent amateur photographer, and carries with him one of Messrs. B. French & Company's most powerful detective cameras, fitted with a Voigtländer euryscope lens, and capable of making a continuous series of one hundred pictures on the new film, the latest substitute for glass. Traveling extensively, as he will, through Spain and other portions of southern Europe, Mr. Cutler intends returning with as fine and complete a series of self-made photographs as were ever made by an amateur.

We begin our series of illustrated "Club Sketches" with that of the recently organized Chicago Camera Club. Mr. Morrill's sketch gives a clear account of the organization of the club and the arrangement of its rooms. With such facilities for work and an enthusiastic membership, the club is sure to make its mark. The negatives from which the blocks were made were taken by Mr. Morrill. We shall be pleased to publish other sketches if the secretaries will prepare them and send us negatives of the interior of the club rooms. We would particularly like to hear from Boston, St. Louis, New Orleans, Providence, and Philadelphia, and we shall be pleased to place any blocks we may have made for illustration at the disposal of the clubs.

We urge our readers to make a trial of the new developing agent, Eikonogen. Both the editors have tested it thoroughly and they agree in thinking it superior to any of the other forms of developers. Mr. Beach's report will be found in another column. We hope that our friends will send us the results of their experiments for publication.

Dr. Andresen, the discoverer of Eikonogen, has recently discovered other reducing agents among the aniline compounds, one or two of which are said to be superior to Eikonogen. We hope to be able to give our readers more definite information regarding these reducers in the near future.

The Schuylkill Camera Club has been organized at Pottsville, Pa., with the following list of officers: Geo. M. Bretz, President; E. F. C. Davis, Vice-President; B. F. Patterson, Treasurer; J. M. Shumway, Secretary. For the present the meetings will be held at the members' residences.

Mr. H. G. Thompson, of the Blair Camera Co., Chicago, has favored us with a number of prints made with the Hawkeye Camera. These prints fully sustain the good opinion of the Hawkeye which we expressed last month, and explain the phenomenal success the camera is having. Both Mr. Thompson and the manufacturers write that they are "way behind on their orders." A good thing is bound to succeed. Witness the success of the AMERICAN AMATEUR PHOTOGRAPHER.

The Suter Lenses at the Convention.—By an unfortunate and inexplicable oversight we omitted to mention in our convention report Messrs. Allen Bros.' exhibit of Suter lenses and specimens of work done with them. The exhibit was an excellent one, worthy of the reputation which the lenses enjoy among those who are fortunate enough to own one. The Suters are made in five series for as many classes of work. The new rapid portrait combination works very rapidly, giving brilliant and well defined images with full opening, and it has great covering power. The single view lens is a wonder, as we know from experience, It is provided with a rotating diaphragm plate, and it has no superior, we believe, for Simon-pure landscape work. The specimen portraits, including all sizes from cabinet to eighteen by twenty-two, made by McMichael, Dabbs, Cramer, Guerin, and others, were of a kind to convince the most skeptical of the good qualities of the Suter lens.

The Harvard Dry Plate Exhibit.—Another of our omissions was the exhibit of the Harvard Dry Plate Company, the merits of which entitled it to a better fate. Much good work done on the Harvard plates was displayed in an attractive manner. We learned that the demand for the plates has become so great that the Company have been obliged to discontinue the manufacture of their photo-chloride paper, which is to be regretted, we think since it is superior to bromide paper in some respects.

From Mr. F. A. Hetherington we have received a large collection of prints from negatives made with the magazine camera which he described in our August issue. The quality of the prints may be inferred from the three illustrations which accompany Mr. Hetherington's "Canoe and Camera" in this issue.

We give this month another of Dr. Emerson's characteristic letters, which is full of ideas and suggestiveness. Dr. Emerson has the courage of his convictions, and while we may not always agree with his conclusions, we are always sure to find something helpful in his work. We give our correspondents perfect freedom of action, in order that they may be at liberty to give the utmost play to their individuality. Originality of thought is a quality greatly to be desired in photographic writing, and we are more than pleased at the acquisition of so original a writer as Dr. Emerson on our working staff.

In answer to many inquiries regarding our "Prize Tour Competition," we state that the accompanying MSS. must be descriptive of an actual camera trip. The length of the trip is of no moment. It may have occupied but a few hours, or it may have been a trip around the world. All that we ask is that the MSS. be suitable for publication. Silver, bromide or aristotype prints will be accepted, but we must draw the line at "blues"; not because we have any great objection to blue prints *per se*, but because it is not possible to pass a fair judgment on the quality of a negative from them. We wish in our own defence to state that our sole object in opening this competition is to stimulate some of our readers to earnest photographic work for a definite purpose. In order to escape the imputation of seeking in this way to obtain a supply of eligible "copy" for future numbers, we shall return MSS. and prints to the unsuccessful competitors. We are not yet reduced to the adoption of underhand methods to obtain "copy" for the magazine. It has been suggested that more would enter the competition if a certain number of diplomas of excellence were awarded to those who just missed the leading prizes. The suggestion is a good one, and we announce that we shall award three such diplomas, suitably engrossed, to the three competitors who stand highest on the list after the three main prizes have been awarded.

We have been promised drawings and description of an efficient home-made optical lantern for our next issue. Now if some inventive mind will send us drawings and description of a practical method of obtaining the dissolving effect with a single lantern, we shall not have labored in vain.

We regret that by some mischance the title was omitted from the interior by Miss Barnes, which we were so fortunate as to secure for our September frontispiece. The interior was the drawing-room of the late Thurlow Weed at Albany, a fact which gives an added interest to as fine a specimen of interior work as we have seen for many a day.

The Club List reappears this month with corrections and additions. We propose to publish the list quarterly, and would thank our friends to send us timely notice of the formation of new clubs.

We repeat our request that club secretaries will send us information regarding exhibitions, etc., which are to be held during the winter and spring. We desire to make out a list of fixtures for the benefit of intending exhibitors, and invite the coöperation of our friends.

The Eagle Dry Plate Company of Jersey City had a notable exhibit of fine prints from negatives on their plates, at the late convention, and the fine quality of the plates is shown by the fact that a large percentage of the prizes awarded to exhibits of prints was captured by the Eagle plate. It may not be amiss to add that we have never found a rapid plate superior to the Eagle plates, which we used, some years since, during an entire season.

A member of the Lynn Camera Club is now at work on the plans for a two-story club-house, 30 x 40 feet, with well-arranged dark-room, a large printing room, sky-light, and other conveniences. We expect to publish a sketch of the new building shortly.

Mr. E. F. Bacheller, of the Lynn Club, sends us an excellent print of an old gentleman on Carbutt's celluloid film. The negative was made with a No. 2 Euryscope lens, stop F-16, on a Harvard No. 40 plate with one second exposure. The negative was fully timed and the print is a very good one, both technically and artistically.

We are promised an interesting communication from "Greenough" for our next issue. His account of some recent experiments in spirit photography, in this number, will be read with interest. He assures us that the experiments were conducted exactly as stated in his letter, in the presence of one of the most careful workers in the Boston Club, and that there seems to have been no chance for any hocus-pocus. The results of further experiments will be eagerly awaited.

Mr. W. G. Chase of the Boston Club sends a print of three Shaker maidens which is remarkably Holbeinesque in effect.

NEW CAMERA CLUB:—The Jamestown (N. Y.) Camera Club was organized on Friday, September 13th. The following list of officers were elected:—President, William S. Bailey; Vice-President, S. Winsor Baker; Secretary, Clifton B. Gates; Treasurer, Louis B. Kent; Directors, J. B. Mumford, D. H. Post, Willis R. Whitney and the officers of the club. At the first meeting Professor Rusk gave an account of the various photo-engraving processes and exhibited a number of negatives made in the Catskills, and Mr. Alling of Rochester described his experiences with a Kodak. Mr. J. B. Mumford and Mr. G. H. Monroe offered prizes for the best prints in eight classes of photographic work. The club has a present membership of fifteen with prospects of a speedy increase.

Mr. F. C. McGirr of Pittsburg, is the first to send in prints and MSS. for our "Prize Tour Competition." The prints are of scenery on the Juniata River and are fine specimens of landscape work.

We learn that the American Aristotype Co., after several months' suspension of work and an exhaustive series of experiments, is about ready to resume the manufacture of aristotype paper made by a new and improved formula.

The credit of having been the first in this country to call attention to the merits of Eikonogen as a developer, unquestionably belongs to Mr. Jas. H. Stebbins, Jr., whose thoughtful paper on new reducing agents is printed in this number.

We wish to call the attention of our readers to the change in our Boston office, which will hereafter be located at No. 56 Bromfield Street, with Messrs. Barker & Starbird, the popular dealers in amateur supplies.

Our correspondence on the subject of the new Eastman Film is conflicting. Some who have tried the film are well pleased with it, while others are of the opinion that further experiments are necessary before certain defects are removed. Our own experience with the film, as set forth in another place, has been on the whole favorable, and we have no doubt that the Eastman Co. will do all in their power to reach perfection in the manufacture of the celluloid substratum. That they have already done so does not yet seem to be an assured fact.

Lantern Slides and Lantern Slide Making.

BY F. C. BEACH.

[Read before the Society of Amateur Photographers of New York, September 10, 1889.]

Within the past two years a greater amount of interest has been shown in lantern slides and lantern slide making than ever before, partly on account of the better and more uniform quality of plates supplied and the simplicity of the development processes which have come into use. The use of the wet plate process and the collodio-bromide process is so limited, that neither can be regarded as a factor of importance at the present time. But it may be said in their favor that, while their rapidity is much less, they are less expensive than the dry plate. The process is therefore well adapted for the manufacture of lantern slides by the quantity, but it is doubtful whether the delicate half tones can be brought out as beautifully as with the improved dry plate. One peculiar advantage of the wet process is the remarkable clearness of the high lights so easily obtained. However, it is a variable process, requires more attention, time, and care than the average amateur has to spare, and involves a certain disagreeable soiling of the hands and clothes which is unpleasant. It is a great saving of time and labor to use plates already cleaned and prepared as is now the case; which accounts for the ease and certainty with which lantern slides may be made. After a little practice the technical difficulties are easily mastered; then the making of a slide becomes a pleasure and more certain in its results than is usually the case in the making of a silver print, besides possessing a delicacy of detail that it is nearly impossible to see on paper. One of the chief requirements of a negative for slide making is that it shall be very sharp and distinct, with sufficient density in the high lights to prevent the clouding of the sky portion of the slide. A moderately dense negative, therefore, generally produces a crisp slide, since it enlarges the limits of exposure and allows more latitude in development. It does not follow, however, that an excellent slide may not be made from a very thin, clear negative. It can be done by careful timing and a proper developer. A foggy negative will produce an unsatisfactory slide. Thus, much depends on the negative; in selecting such for slide work from a summer's collection, reserve only those that are sharp and of good average density. A slide made from a blurred negative is worse than useless, since the blur is magnified very unpleasantly when the picture is projected on the screen.

There are two different ways of making slides. One is called the contact method and the other reduction by the camera. In the contact method a portion of a large negative is sometimes selected, on which the sensitive plate is laid in contact, film side next to the negative film, in a printing frame. Over the back of the sensitive plate should be placed a sheet of black or orange-colored paper, to prevent the reflection of actinic rays from the back of the sensitive plate against the under side of the sensitive film. The plate is then clamped in contact with the negative by the usual springs attached to the printing-frame back. Holding the frame towards a screened gas-light or kerosene light about eighteen inches distant, an average exposure of ten seconds is given by quickly removing and replacing the screen. A thin negative will need but two seconds; a very dense negative will require from twenty to thirty seconds, and one having a yellow tinge may take a minute. By making a few trial exposures and developing them, the different capabilities of different negatives may be quickly learned, so that one may tell by instinct how long the exposure should be. It is advisable to grade the negatives according to their density, so that a uniform exposure may be given to a certain number, which should result in the production of satisfactory slides. For contact work many prefer to use 4 x 5 negatives, selecting the center for the picture; but a better size is the 3¼ x 4¼ plate, which has margin enough to allow the proper locating of the sensitive plate and makes a picture better proportioned to the lantern size.

Instead of artificial light, diffused daylight or magnesium flash or ribbon light may be employed. By placing four printing frames, containing as many negatives and plates, twenty inches equidistant from a central point, one exposure of an inch and a half of magnesium ribbon burned over the central point, moved about a little, will affect equally the

four negatives. The plates thus exposed may all be developed at once in a 6½ x 8½ tray, with the probability of securing good slides. So that by the contact method, slides may be made very rapidly during the evening when one has leisure time.

Reduction by the camera is largely preferred, because the variations in the size of the image to be impressed upon the sensitive plate are so easily and quickly effected. Usually the camera is placed on a long board, holding at one end a frame in which are removable kits or frames to hold different sized negatives. A printing frame with the back removed may be utilized for this purpose. The negative is best illuminated by facing that portion of the sky opposite to the position of the sun, though it is possible to use sunlight by interposing a ground glass between the window and the negative and giving a shorter exposure. The space between the negative frame and camera should be covered by a light black cloth to exclude extraneous light.

I prefer to have a special frame fitted to the back of the camera, with a 3¼ x 4¼ aperture cut in the center, arranged to support or hold a 3¼ x 4 double plate-holder, rather than to employ a kit in a large holder, because it is more convenient and more easily handled. Mr. Charles Simpson suggested some time ago a swinging or pivoted frame for holding the negative, that the picture might be leveled easily, in case it was taken at an angle on the plate. He also provided simple means for sliding the frame horizontally and vertically. These movements are very advantageous and should be provided if one is to work quickly. I generally employ a rapid rectilinear lens, though this is not necessary as a wide-angle lens will answer just a swell. Any lens that will give a sharp picture stopped down to F–16 will do.

Much study has been given to the matter of artificially illuminating negatives for reduction in the camera. The cheapest method is the magnesium ribbon light moved around in front of the negative having a diffusing screen interposed. Mr. James H. Stebbins, Jr., devised a method of using the oxyhydrogen light in connection with a parallel arrangement of condensers by which negatives were uniformly illuminated, but because of its expense it is not likely to be generally used.

A former member of the society has suggested to me the use of an arc electric light diffused by a screen of ground glass, the light to be above and in front of the negative about four feet distant; it thus strikes the negative at an angle and is said to illuminate it equally.

There have been three favorite kinds of developers for lantern slides, pyro, hydroquinone, and ferrous oxalate. The two latter do not stain the fingers. Pyro should be preserved with sulphite of soda and combined with such alkalies as soda and potash. Four ounces of sulphite should be mixed with one ounce of pyro. This is undoubtedly the quickest developer, and, when the exposure is nearly correct, imparts a brownish tone to the slide. Not more than two plates should be developed in succession in one solution. A working formula is as follows:

Pyro,	2 grains.
Sulphite of soda,	4 grains.
Carbonate of potash,	3 grains.
Water,	1 ounce.

If the shadows develop too dense the amount of pyro should be decreased.

A Hydroquinone developer contains more hydroquinone in proportion than there is pyro in the pyro developer to get the same amount of density, but the difference is made up by the greater number of plates that can be developed with it. The following is used successfully:

Sodium of sulphite,	40 grains.
Hydroquinone,	15 grains.
Water,	1 ounce.

To this is added fifteen grains of carbonate of potash, which forms the developer with which from six to eight plates may be developed in succession.

One noticeable peculiarity about hydroquinone developed plates is that an opalescent deposit forms on the film, supposed to be due to sulphite of soda, which will come off by rubbing the film over with a tuft of absorbent cotton, after the plate is fixed and washed.

The ferrous oxalate developer, commonly known as the *iron* developer, has for a long

time been regarded as the standard for lantern slides on dry plates, and when properly handled it does produce exquisite results. But it does not keep well after being mixed and rapidly deteriorates on exposure to the air. The point most to be feared is the precipitation of the ferric salt, by having too much iron in proportion to the oxalate of potash. Two separate saturated solutions, one of sulphate of iron and one of oxalate of potash are made by dissolving each in hot water. The iron is acidified with five drops of sulphuric acid to each pint, while the neutral oxalate may be made acid by adding oxalic acid until blue litmus paper is turned red. To develop, use:

Oxalate of potash solution, ...	6 ounces.
Iron solution, ...	⅛ to ¼ of an ounce.

When the detail has appeared, if the development is too slow, about 1½ ounces more of the iron solution may be added, which will increase the density. It is advisable, after fixing, to immerse the plate in a clearing bath of alum and citric acid.

We now come to a new developer which will supersede all others for lantern slide making, as it gives to the film a bluish black tone very similar to the palladium or platinum tone usually given to wet plate slides. I refer to "Eikonogen." The proportions recommended are:

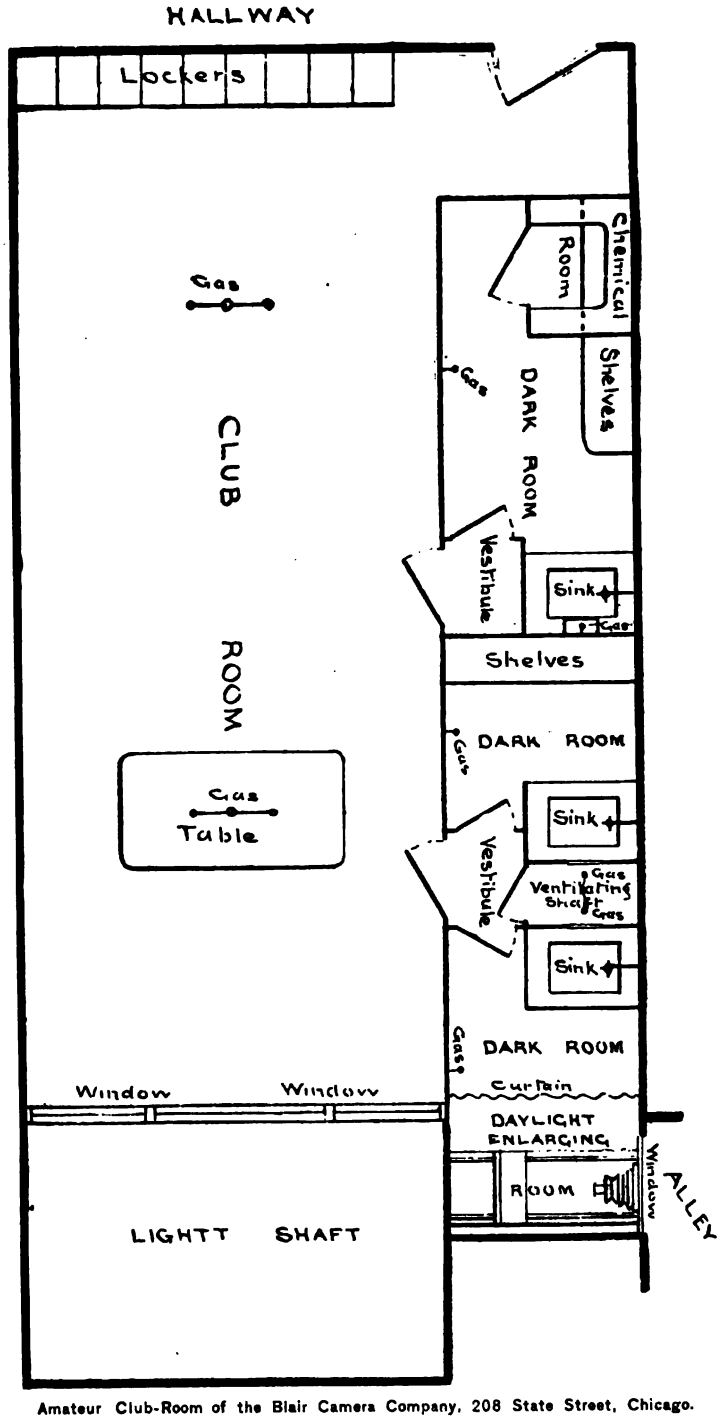
Sulphite of soda, ...	10 grains.
Eikonogen, ...	5 grains.
Carbonate of potash, ...	2 grains.
Water, ...	1 ounce.

A developer thus made will develop rapidly from seven to ten slides in succession, each of which will be absolutely clear glass in the high lights, and have in the shadows a density so delicate that the light of the optical lantern will bring out in fine relief all the details. The slides possess a richness in crispness and sparkle that is seldom seen in wet plates. The rapidity of the action of the developer may be retarded by adding a few drops of a 10 grain to the ounce solution of bromide of potassium. After the slides are washed in changing water for half an hour, they should be rubbed off with absorbent cotton to remove any floating particles that may have become attached to the surface, and then set up to dry.

Mats for lantern slides should vary in size and form with the subject in hand. One method of making them is to have a number of different sized brass forms made which may be laid over the paper confined in a printing frame and then be cut out with a Robinson wheel cutter or a penknife. From three to four mats may be cut out at one time in this way. Another plan is to make special dies out of clock spring or corset steel, by grinding down one edge to a cutting edge and bending the strip around a wood form of the proper dimensions, previously cut out, and holding the steel in place by suitable screws. If the paper is made into several folds and is laid on a block with the end grain upward, and the die inverted and hammered down through the folded paper, two dozen or more mats may be cut out very quickly. Another mat used by members of the Boston Camera Club has dotted lines printed on it, intended to serve as guides for cutting out with a penknife. The lines are made in proportions suitable to mat reductions from 8 x 10, 5 x 8, 6½ x 8½, 4 x 5, and other sized negatives.

There seem to be several different ways of labeling and marking slides, but the system adopted by the American Lantern Slide Interchange appears to be the simplest. After the cover glass is put on by the usual gummed strip paper, holding the picture in its natural position, the descriptive label is attached to the right-hand side of the cover glass, with the reading matter facing inward, while the thumb label is placed on the lower left-hand corner. The reason for this is that as the slide is taken up and held between the thumb and finger with the thumb on the thumb label, the description and name on the label at the other end are very easily seen and read. Still holding the slide with the thumb and finger it is at once pushed into the slide carrier of the lantern and appears correctly on the screen. The cover glass should invariably go toward the condenser of the lantern. If the plan described is used, there need be no mistake in puttting through a number of slides.

Having given some of the points to be observed in the making of lantern slides on dry plates, it is needless for me to go further. The utility, benefit, and pleasure to be derived from lantern slides are self-evident to all. I look for more extended work in this field this winter and trust many new members will try a hand at it.



Amateur Club-Room of the Blair Camera Company, 208 State Street, Chicago.

Amateur Club-Room of the Blair Camera Company,

208 STATE STREET, CHICAGO.

[Fitted up for the special accommodation of their patrons and traveling tourists. Open daily and Monday and Friday evenings, and by special requests from parties on other evenings. Finest facilities of any set of rooms in the West.]

The general arrangement of this room and its accessories is so well shown by our full-page cut that very little description is necessary. The club-room proper is 13 x 33 feet, amply lighted by a large window occupying the entire west end, and extending from the ceiling to within two feet of the floor. This window opens into a spacious light shaft, serving the double purpose of light and ventilation; and the light is of such a character that well-modeled portraits can be taken at the west end of the room with reasonably brief exposures (with the aid of suitable screens and reflectors). So that, to a considerable extent, it supplies the want of a sky-light. At the opposite end of the room, near the entrance, a number of lockers for the accommodation of amateurs have been placed, thus enabling each one to keep his chemicals, plates, etc., or his entire outfit, if not too bulky, separate from the others and under lock and key, an arrangement that cannot fail to be appreciated by the patrons of the establishment. A large white screen, on rollers, is suspended immediately in front of these lockers, for the purpose of lantern exhibitions, being kept rolled up except when in actual use.

Along the south side of the room will be seen a series of dark-rooms. The one nearest the entrance is devoted to the experimental work of the Blair Camera Company, and contains an inner room for the storage of the various chemicals used. This dark-room is lighted by means of a gas-jet enclosed in a box-shaped lantern immediately over the back of the sink, provided with a groove in front to hold ruby or other non-actinic glass, and communicating with a chimney by means of a galvanized iron pipe, so that it serves as a ventilator at the same time.

The other two dark-rooms are intended for the use of patrons of the house. The west one, which is much larger than the other, includes arrangements for daylight enlarging, by means of a hinged reflector outside the window, shown on the plan as opening onto the alley. A very fair light for the purpose is thus obtained. The whole surface of this window, except the opening covered by the enlarging camera, is of course obscured; but a small opening above the camera, covered by a sliding sash, solid at one end and containing ruby glass at the other, allows of either white or red light being admitted or excluded at pleasure. This portion of the room may be cut off from the part containing the sink, etc., when desired, by means of a sliding curtain. This dark-room and the one adjoining it are lighted by means of independent gas-jets contained in a ventilating shaft between the two rooms, which shaft communicates with a chimney at the top, and by means of holes in the partitions with the dark-rooms at the bottom, thereby securing sufficient ventilation. Sliding ruby windows are placed in front of the gas-jets.

It will be noticed that each dark-room is entered through a vestibule with double doors, thereby allowing ingress and egress without exposing any plates that may be developing, etc., to white light.

The sinks in all three rooms are alike, being of steel with wide wooden curbs on all sides and a shelf above for bottles, etc. Below the sinks are shelves and vertical racks for trays. Other shelves are provided where indicated on plan. Besides the developing lights, each dark-room has another gas-jet, so that the whole room can be brilliantly lighted at any moment. It should be stated that all the gas-burners are of the Gem self-lighting variety, always ready for use by the simple pulling of a chain, and therefore the inconvenience of finding oneself in the dark without matches is abolished. These burners are a great convenience in any dark-room.

Each sink is connected directly with the city water supply, and the waste pipes connected with the plumbing system of the building. In addition to the dark-room shown in

the diagram there are two others open to amateurs, one 6½ x 7½, furnished complete with all the appointments needed for manipulating any size plate with an abundance of water supply; the other 9 x 12, used more particularly for the changing of plates, manufacture of ferro-prussiate paper, silvering paper, and compounding various specialties sold by the Blair Camera Company. In fact, the Chicago amateurs will find that their wants have been very generously provided for by the Company.

The Chicago Branch is in charge of Henry G. Thompson as manager, assisted by an able corps of employés, who make it a special study to please and accommodate all patrons and visitors. In addition the Company have a branch at 918 Arch Street, Philadelphia, where they have a full stock of supplies and the best of accommodations for amateurs. The factory and salesroom are located at 471 to 477 Tremont Street, Boston, where they manufacture the largest variety of light-weight cameras and apparatus of any company in the United States.

Swing Back Attachment for Detective Cameras.

BY MAJOR GEORGE SHORKLEY, U. S. A.

[Read before the Society of Amateur Photographers of New York, September 10, 1889.]

This camera swing is specially adapted to detective or hand cameras. You will notice that all its working parts are within the compass of the frame of the camera and the adjustments are made as conveniently as the insertion of the holder, and from the same side or end, which makes it unusually convenient and easy of manipulation. It is not only a double swing but a universal swing, as it will swing in all directions pivoting as it does, on a universal joint in rear or back of the centre of the ground glass or plate-holder, and its swing may be made more or less at the will of the operator and is securely held as adjusted, without the turning of a screw head, and is as easily readjusted to a parallelism with the lens, which, of course is its normal position. The operation of it is so simple that I need not describe it. You have but to move two spring-catches or guides back and forth in their ratchets.

One caution may be needed, however, and that is this: You notice that the pivot for the swing is back of and central with the plate-holder and thereby secures the least possible displacement of focus of the lens when the swing is used. Now to adjust the swing properly you move one spring-catch forward, or back, as you may wish to swing, and the opposite one in a reverse direction thus equally dividing the swing of the holder upon its centre.

In adjusting the swing, it is found best to move first one catch and then the other, although both may be moved at the same time if desired. Now after you have adjusted for perpendicular sufficient to bring the object on the plate to suit you, if you find your object has one side very much farther away from you than the other—and on account of the large stop necessary to use and your nearness, and the object you fear will not be well defined—suit your focus to a central part of the object, rather less than more, and then make a horizontal swing to suit. In making this adjustment, move both spring-catches alike and in the same direction; this will enable you to get good definition throughout, when without the horizontal swing it would be impossible. Of course, in time exposures the horizontal swing need not be used, as you can stop the lens down to suit your nearness to the object, and definition be secured in that way.

In instantaneous or short exposures only a limited use of the swing is practicable, on account of the large stop necessary to use. To explain, we use for a 4 x 5 plate, a seven-inch Beck lens, this has good covering power for this size plate, and we habitually use it with full opening which is F-8, and at fifty feet focus, and we get good results. Now, if we use the vertical swing at the same focus we stop the lens down to F-11 to get as good results as at F-8 without the swing. Of course, this might not be necessary could we go further away, and would not be necessary if we do not care for sharp definition over the whole plate.

A good swing seems to be needed on all cameras when it can be employed, and is of much use, indeed more use for it is found on the hand cameras than view cameras, especially if

they be used for view work, for upon it we can have no raising front, and must have resort to the swing to secure a like result. With the limited covering power, of our lenses, we find but little choice in the two choices. We use the raising front on the view cameras because it is the most convenient, for if we use it we must stop the lens down much the same as in using the swing, or we may find we have carried the lens off to one side of the plate, or put it in confusion. They are both means to the same end, and are to be employed only when needed, and when needed are likely to be *very much needed* and should be had if practicable. In this swing we have about all that is possible in a swing, and in using it for the last seven months we have found it very satisfactory, and now would not do without it.

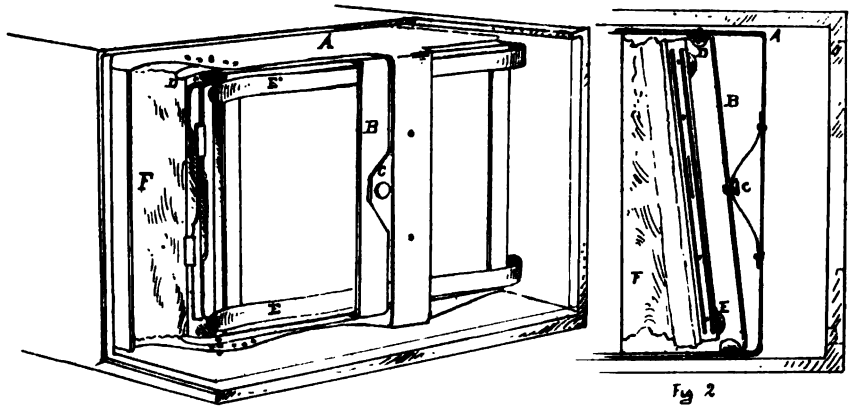


Fig. 1 is a perspective view of the attachment. Fig. 2 is a side elevation. A is a thin sheet of metal attached to bottom and top of camera frame, projecting to the rear and connected by a narrow central strip. On the latter is attached the brace (C), which supports a second strip (B), enlarged laterally at right angles at both ends, into springs (D). These springs have a punctured point which engages in the holes at each end of A above and below, and supports the plate-holder and rear frame of the extra small bellows (F), attached to the main frame. (E) are two clamping springs to hold the plate-holder tightly against the rear frame. To make the swing, the two springs (D) are pushed towards each other till they lift from the holes, then the back with plate-holder, being pivoted at (C), is tilted to any desired angle and held by releasing springs (D). The camera case is run outside of the several parts.

You will notice in the camera here that it is made to work in a very limited space, and works well. The only added space taken is 5-8 of an inch to the length, to accommodate the pivot for the swing; this practically amounts to nothing. To assure the plate being perpendicular after the swing is adjusted, this little plumb you see on the outside of the camera is used —lines plainly drawn there will do—care being taken that the plate shall now lean *backward* out of the perpendicular. A little lean forward may not be noticeable in the picture, and if a landscape with trees,it may add to its beauty.

A little about the origin of this swing may interest you. As some of you may remember, we were for some time waiting the advent of a camera that suited our uses for instantaneous work. It did not come, and we found the one to best suit our disabilities and the only left-handed camera in the market, to be the Anthony Climax Detective 4x5 Camera. We obtained it and soon learned that we must have a swing to do the work we wanted. We visited the camera-makers and others and was told that no swing could be put on this camera, there was not room, etc., etc. We needed the swing more and more, we found, as we developed each new lot of plates, and determined to have it, and we set to work thinking and thinking it out. We hit upon, in a short time, a good single swing, and was happy until one day in the park we made an exposure on a certain bridge from a fixed position. We found the single swing was only about half what was needed—we could not get it sharp at one end with full opening of lens which was needed if one got it at all, as it was in winter and

the light poor—we tried it repeatedly, a turn of the camera on its side making the swing a horizontal instead of vertical swing. This showed a way out of the corner we were in, and we immediately went to work to make the single swing a double swing, with the result you see here. Well we got that bridge—sharp too—from end to end.

The swing on the 3¼x4¼ and the one on the 4x5 camera shown here are for the same camera, and the only ones made so far, and are only in the rough, having been made by us, assisted by our gunsmith. We think that the swing will soon be in a shape that you may use it, and we wish it may give you the satisfaction that it has given us.

We believe in swings and consider them necessary to secure good results under all conditions. It was this need of it that led to this, and the narrow limits in which it had to work determined its character. After the swing was completed efforts were made to devise a swing that should be automatic and that would keep the plate in a vertical position without regard to the camera casing; this was accomplished, but with an added weight to the camera of nearly twenty-two ounces. This is a gravity swing and was used with the ordinary Anthony holders and glass plates. With the new films and film holders it is thought that eight ounces added weight will be all that will be needed and possibly much less will do. This is thought not objectionable, but the other, of twenty-two ounces, was not to be thought of. We are not sure that an automatic swing is generally desirable; surely if used with our ordinary lenses its limits must be restricted, or wretched negatives will be produced more often than would be agreeable, but it will come after a little. A swing to give satisfactory results must be used with careful consideration for the work to be done and the capability of the lens should be kept in mind when using it.

Raising fronts and swings are very desirable and when we can use them on our cameras we had better have them and carefully study their uses and use them when wanted.

Club Sketches.

No. 1.

THE CHICAGO CAMERA CLUB.

We present our readers, in this number, with two views, showing the library, or reception room, and the studio, or working room, of the Chicago Camera Club.

The amateur photographers of Chicago have long felt the want of a suitable organization, there being nothing of the sort in the city (with the exception of a club devoted entirely to lantern slide work). With the characteristic energy and enterprise of Chicago, a club has been organized and put in successful running order this summer, that for completeness of detail and furnishing we doubt can be excelled in the world.

A preliminary meeting was held early in May at the Art Institute, which was largely attended, and at this and one or two succeeding meetings the necessary details were arranged. The officers of the club are as follows: President, Rev. M. L. Williston; First Vice-President, Frank Sayre Osborne; Second Vice-President, Mrs. H. N. May; Secretary, Fred K. Morrill; Treasurer, John W. Buehler; Librarian, Miss Grace Temple. The directory consists of the above-named persons, with the addition of C. D. Irwin, Heaton Owsley, J. P. Gardner, Mrs. P. B. Weare, and Mrs. D. M. Stevenson. The active membership of the club consists at present of about one hundred persons, and is increasing daily. About one-third of the members are ladies. Among the honorary members and lecturers of the club we notice such well-known names as Prof. S. W. Burnham, Dr. E. L. Wilson, Dr. John Nicol, Dr. H. D. Garrison, and Coleman Sellers.

The fitting of the rooms has been left mainly to Messrs. Morrill and Buehler, and they naturally feel proud of their work. A competent person is in charge during the day, and the rooms kept open continuously from nine o'clock A.M. until six o'clock P.M., and the members have keys for evening and holiday use. A brief description of the rooms will be in order.

The situation is in the heart of the city, at No. 182 Wabash Avenue. Taking the elevator, we are landed at the fifth story, at the door of the club. Entering, we find the library room, size about 20 x 40 feet, beautifully decorated and carpeted, and finished throughout in antique oak. The table holds all the current photographic periodicals, and the book-case a very complete library of photographic literature, which is being constantly added to. The walls are adorned with several of the master-pieces of celebrated American and foreign photographers, as well as many beautiful contributions from the club's own members. An extra large supply of chairs is contained in an adjoining closet, by the aid of which the room can be made into a very convenient lecture room. A large roller screen for lantern views is suspended permanently over the front of the room, and can be rolled up out of sight, or pulled down in an instant when required for use. The gas fixtures also swing on pivots, so as to be readily pulled aside from the lantern's rays. An easy stairway leads from this room to the working rooms above, and here, upon any day, can usually be found a large representation of the club's members, both ladies and gentlemen. A large iron structure, about 30 x 50 feet, has been built upon the roof of the original building, with an independent supply of water and an abundance of light and air.



THE LIBRARY.

The studio proper is a room about 20 x 30 feet, nearly covered by an immense sky-light, considered one of the finest and quickest in the city. The walls are tinted with a slightly absorbent color, and the sky-light covered with a series of twelve dark-grey shades, by which any desired light or effect may be produced. The studio is supplied with one of Scovill & Adams' Royal Portrait cameras, with the Gem City stand, and Voigtländer Extra Rapid Euryscope, with Low shutter. A very complete assortment of backgrounds, foregrounds, reflectors, draperies, screens, and other accessories completes the equipment, which is being constantly added to. Adjoining this is a dressing-room, supplied with all necessary toilet requisites and "make-ups," including a full-length mirror.

Leading from the studio are two commodious dark-rooms, supplied with running water and all necessary apparatus, and lighted with Carbutt's lanterns, connected with gas or by daylight at will. The medium used is red and orange. The enlarging room has Eastman's complete enlarging outfit for working negatives up to 8 x 10.

The laboratory is well stocked with all chemicals and solutions in ordinary use, which are supplied free to members for use in the rooms. It also contains one of Smith & Patterson's latest improved burnishers (heated by gas in center of roller), ready for use almost immediately.

From this we step into the printing and toning room, well stocked with all necessary apparatus, and with printing space for about two hundred frames. Upon the walls of this room are a large number of lockers, for individual use, which are supplied to the members at cost of making, and become their property without rental. At the end of the printing room is another dark-room, to be used either for silvering or for changing plates, etc.

For completeness of detail and good management thus far the Chicago Camera Club is a model institution, and is meeting with the success which it so well merits. The initiation fee for new members is ten dollars and annual dues twelve dollars. Non-resident associate

members are admitted without initiation fee, and pay six dollars annual dues. The club has just given a very successful outing, with suitable prizes, and more are contemplated for the future. The first public demonstration of Eastman's new transparent film was also given by special appointment at their July meeting, and the members are promised the initial exhibition of Steffens' Automatic Photographer, the marvelous new machine just perfected by a Chicagoan, which is said to be able to turn out a finished (flash-light) portrait on celluloid in a space of less than a minute after the sitter "drops a quarter in the slot." At the September meeting the first demonstration in America of the new developing agent, Eikonogen, was given. Other novelties are in store for the members, which will be duly chronicled in the AMERICAN AMATEUR PHOTOGRAPHER.



Apparatus for Developing Plates by White Light.

This apparatus was exhibited before the Society of Amateur Photographers of New York a short time ago by the Anti-Dark-Room Company. We now give a detailed sketch of it. Fig. 1 is a perspective view. Fig. 2 is a sectional elevation showing the plate falling into the developer. It consists of a light wood frame supported on legs about 8 inches long,

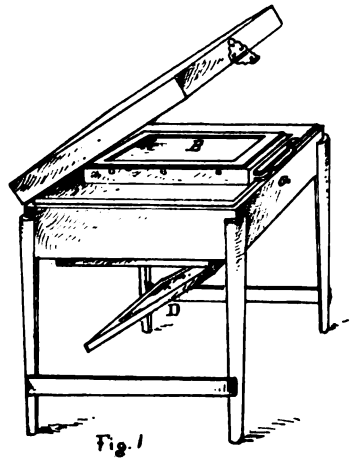


Fig. 1

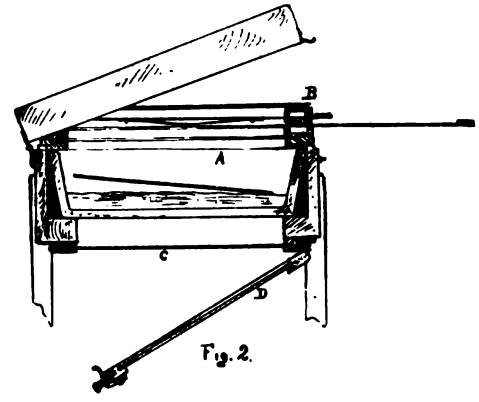
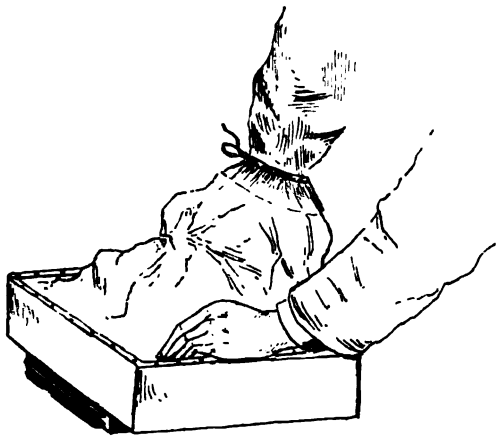


Fig. 2.

having a hinged cover. In this frame is set an orange glass developing tray, A. Attached to the bottom is a ruby sheet of glass, C, and below that is a hinged mirror, D. The plate-

holder, B, rests on a board which is tightly closed over the tray, A. The plate-holder, B, has two slides, an exposing and a transferring slide. The latter has a light, flat brass spring attached to one side, as seen in Fig. 2, to press the plate against the usual stops. In Fig. 2 the position of the plate-holder should be reversed, and it should have been the slide with the spring on that should have been pulled out instead of the slide shown. If this is done, the plate having its back support removed will drop gently, as shown, into the colored developer. Then the plate-holder and cover board are quickly slid off and the cover closed. To observe development, simply raise cover and look in. The density is observed by throwing light up through the bottom from the reflector. A frame with the changing bag attached goes with the apparatus. In the cut the plate-holder is attached. The spring slide is drawn out and a plate from the box of plates supposed to be in there is taken out and dropped, film side up, in the holder; then the slide is pushed home, and the holder detached ready for exposure in the camera.



COMBINED CHANGING BAG AND BOX.

Suggestions as to the Use of Certain New Organic Reducing Agents as Developers.

BY JAS. H. STEBBINS, JR.

[Read before the Society of Amateur Photographers of New York, June 11, 1889.]

From long usage we have become accustomed to and thoroughly understand the properties of such developers as pyrogallol and ferrous oxalate. Within the last two or three years a new organic reducing agent was brought to our attention—namely, hydroquinone. This compound has now also become thoroughly known, so that it will be useless to say anything about it here. These three substances are practically the only organic reducing agents used at the present time, and it is my intention in this paper to suggest certain other compounds which may possibly be used for this purpose. Some of these compounds I dare say have been already tested, but others I am convinced have not, and I therefore offer them to you with the hopes of inspiring some with the desire to make original investigations in this direction.

Resorcine.—Isomeric—that is, having the same formula as hydroquinone, but possessing different properties—is resorcine. This substance, as I have already described in a previous paper, is prepared by fusing benzoled isulphonate of soda with caustic soda, setting the phenole free with hyhrochloric acid, and extracting with ether. It is a white, crystalline body when pure, having the formula $C_6H_4 <^{OH}_{OH}$ and is, chemically speaking, a metadioxy bensole. I have experimented with this substance, using carbonate of soda and carbonate of potassium, without, however, obtaining any satisfactory results. H. Tóth and Eder (Phot. Corresp., Vol. 17, p. 191), however, say that in an ammonial or caustic soda solution it reduces gellatino-bromide plates quite well, although somewhat slower than pyro.

Pryocatechin, $C_6H_4 <^{OH}_{OH}$ the third isomer of hydroquinone, is said by the same authori-

ties (loc. cit.) to work quite well also. This substance crystallizes in rectangular prisms, belonging to the orthorhombic system, and chemically speaking it is an ortho-dioxy benzole. Eder and H. Tóth, in their experiments, used a five per cent. pyrocatechin solution, to which they added two or three drops of ammonia for every twenty cubic centimeters.

Phloroglucine, $C_6H_3 \begin{cases} OH \\ OH \\ OH \end{cases}$, an isomer of pyrogallol, has also been tried by Eder, who states that even in a strong ammoniacal solution it works very poorly, as the reducing action is very slight. Perhaps in a caustic soda solution it might work better. This substance is best prepared by fusing resorcine with caustic soda. It crystallizes in hard rhombic prisms, having a very sweet taste.

Some time since I made a few tests with phenylhydrazine chloride, and found that this substance, in a caustic soda solution, reduces chloride of silver very easily. I did not extend my experiments to bromide of silver, but have no doubt but that it will reduce the latter too.

This compound may be prepared by reducing diazobenzole chloride with tin and hydrochloric acid, and it has the formula $C_6H_5\text{-}N_2\ NH_2\text{-}HCL$. It crystallizes in little pearly plates, which are quite soluble in water, and altogether it is a very remarkable compound.

While reading over the Berichte of the German Chemical Society, some time since, I ran across an article by O. N. Whit (loc. cit., 1888, p. 3468), entitled "Reduction Products from the Azo-coloring Matters of the Naphthalin Series." This article describes a number of compounds which I think may prove useful in photography, though I have not heard of their being used, or even experimented with, for this purpose. I will now give a brief résumé of the same.

Amido-β-naphthol-α-sulpho acid. This compound was obtained by reducing with stannous chloride and hydrochloride acid, a yellow dye-stuff produced by the action of diazobenzole-chloride upon β-naphthole-α-sulpho acid. The above amido-naphthole-sulpho acid crystallizes from the hot reaction mixture in little right-angled, indented, rose red leaflets. It is very little soluble in boiling water, but a trifle more so in an aqueous solution of acetate of soda, from which, on cooling, it crystallizes out again. Alkalies and alkaline earths dissolve it very readily, and the solutions thus obtained, when left exposed to the air, turn rapidly orange brown. Oxidation products color either the neutral or alkaline solutions of this acid yellow to brown. The most peculiar feature of this salt, as well as of those that are to be described further on, is the fact that it reduces silver salts, either in acid or alkaline solutions, to extremely finely divided metallic silver. This peculiarity would, in my opinion, make the new compound an extremely valuable one for use in developers. Lack of time has prevented me from making tests in this direction, but I have every reason to believe that this compound, as well as some of the others to follow, can be made to take the place of pyro, etc.

Amido-β-naphthol-β-sulpho acid.—This compound is someric with the foregoing one, and may be obtained by reducing the orange dye-stuff produced by combining diazobenzol-chloride with Schäffer's β-naphthol-β-sulphonic acid. It is obtained from the reaction mixture in little white crystals. In small quantities it may be dissolved in boiling water, without decomposition; and if the solution thus obtained be rapidly cooled down with ice, the amido-acid crystallizes out unaltered in little snow-white needles. By slow cooling of the aqueous solution it is decomposed, gradually turning brown. In alkaline solutions it behaves similarly to alkaline pyrogallol solutions. It likewise reduces silver salts to metallic silver.

Amido-β-naphthol-δ-sulpho acid.—This compound is isomeric with the foregoing one, and was obtained by reducing the dye-stuff produced by combining diazobenzol-chloride with Cassella's naphthol-sulpho acid, F. Crystallizes in glistening rose-red needles. The cold aqueous solution of this compound reduces nitrate of silver only after a few seconds, and not, like the beta acid, the very moment they are mixed.

Amido-β-naphthol-α-disulpho acid.—This compound is obtained by reducing the aniline-azo derivative of naphthol disulpho acid R., known in commerce as "ponceau 2G." Crystallizes in snow-white needles, with silky lustre. It reduces silver salts immediately to metallic silver.

Amido-β-naphthole-γ-disulpho acid.—This compound is obtained by reducing a dye-stuff known in commerce as "ponceau G." It is isomeric with the previous compound, and crystallizes in snow-white prisms. This compound reduces silver nitrate to metallic silver, but only after a few minutes' contact with the latter.

Orthonaphthylendiamine-β-disulpho acid.—This compound was obtained by reducing the dye-stuff produced by combining diazo-benzol-chloride with β-naphthylamine monosulpho acid, and known commercially as "Golden Brown." It is thus obtained as a yellowish white crystalline meal. It reduces silver salts, but the author gives no particulars concerning the same.

Orthonaphthylendiamine-δ-sulpho acid. This compound is isomeric with the foregoing one, and may be obtained by reducing the dye-stuff produced by combining diazo-benzol chloride with β-naphthylamine-δ-sulpho acid. It is thus obtained as a grayish powder. It reduced nitrate of silver which has been acidified with nitric acid quite rapidly.

Orthonaphthylendiamine-γ'-sulpho acid. Isomeric with the previous compound. It may be obtained by reducing the aniline-azo-derivative of Dahl's sulpho acid No. 3, known as β-naphthylamine-γ-monosulphonic acid. Crystallizes in light brown, glistening leaflets. It reduces silver salts.

Without wishing to appear tedious by the description of so long a list of new compounds, I cannot close this paper without making a brief mention of two other substances from which I think good results might be obtained. I refer, namely, to para-phenylendiamine, which may be obtained by reducing para-nitracetanilide with tin and hydrochloric acid; and to dimethyl-para-phenylendiamine, which may be obtained by reducing nitroso-dimethyl aniline with zinc dust. Both compounds, especially the latter, absorb oxygen from the air, and for this reason they might make good reducing agents.

At the time I read this paper before your Society, my manuscript was not completed, and illness shortly afterward intervening, has prevented me from completing it till recently. A few days since, upon my return from the country, where I had gone to recuperate, my attention was called to a new developing re-agent known as "eikonogen." Imagine my surprise when I learned that this new compound was nothing more nor less than amido-β-naphtbole-β-sulphonic acid, which I described in the early part of this paper, over three months ago. I do not know to whom the priority of this discovery is due, or even whether it is patented, but, as I was the first to suggest its use as a developer in this country, I think I am entitled to some recognition for the same.

September 15, 1889.

Eikonogen—A New Universal Developer for Photographic Dry Plates and Bromide Paper.

BY F. C. BEACH.

Advances in photography are now so rapid that it is somewhat confusing to the professional or amateur photographer as to when and where the improvements will stop—if they ever do. Simply the subject of developers for dry plates would compose a volume if all the formulas, with their variations, were published, including as it would the experience and whims of hundreds of photographers. Scientists in chemistry have been experimenting upon the remarkable reducing power on the silver salts observed in the derivatives of aniline, and have endeavored to make them of practical use in photography.

Such a derivative was discovered early in this year by Dr. Andresen, of Berlin, Germany, and is named "eikonogen." It is manufactured there by very extensive aniline dye works, and promises to supplant all other developing agents yet proposed.

It is a substitute for pyrogallol, hydroquinone, oxalate of potash, and sulphate of iron, and, in fact, of all chemicals that reduce the silver salts. As it can be so easily made, it

becomes at once the cheapest reducing chemical now on the market, and we have no doubt, as the demand increases, the price will be still lower. It is packed in small tin cans similar to those holding aniline dyes, having a hinged spout at one corner.

It will keep indefinitely in a dry powder in any climate, provided it is not injured by the fumes of ammonia, with which it must not come in contact. It is in the form of a greenish-white powder, which, when dissolved in water, turns to a dark green color, but is perfectly clear.

The advantages claimed for it, and which we have found to be substantially true by experiment, are that it produces a bluish-black colored image, depositing in the film a very delicate precipitate, which, in consequence, brings out the finest details to a degree that is surprising. The structure of the picture film is, therefore, much more compact and finer grained than it is possible to obtain with the pyro or ferrous oxalate developer. The developer operates regardless of the temperature. Hence it is adapted for use in hot or cold climates. It is non-poisonous, perfectly harmless, does not stain the fingers, does not discolor or deteriorate when exposed to the air in a tray or graduate, always keeps clear, will keep mixed in a well stoppered bottle ready for use for over a month, and acts so quickly and powerfully that the ordinary exposures given for pyro development may, it is said, be reduced one-half. But its pre-eminent quality, in addition to its great reducing power, is that it does not stain the film in the least, even after repeated use, and hence a given quantity of solution may be used over and over again, until its developing power ceases.

The stainless nature of the developer adapts it admirably for the production of line work negatives on dry plates, for the development of lantern slides, and for positive prints on gelatino-bromide paper or porcelain. So satisfactory is its working on paper that we have substituted it for the ferrous-oxalate developer. Its particular merit is that every copy on paper is beautifully clear in the high lights, which is a point of great importance in making bromide enlargements.

For shortly exposed plates and bromide paper the following formula for a one-solution developer works well:

Sulphite sodium C. P.,	2 oz.
Carbonate of potash,	1 oz.
Distilled water, melted ice, or rain water,	30 oz.
Eikonogen,	1 oz.

Dissolve in the order named. Eikonogen is perhaps ten times less soluble than pyro. We tried to dissolve the ounce in ten and twenty ounces of distilled water, but without success. In using this developer it is advised that from six to eight drops of the following accelerating solution be added:

Hyposulphite of soda,	60 gr.
Bromide of sodium,	360 gr.
Water,	8 oz.

We simply added three or four grains of bromide of potassium to five ounces of the developer and obtained good results.

It is not necessary to mix the carbonate of potash to form one solution. It may be kept separate and dissolved in concentrated form in the proportion of 160 grains to the ounce of water. Taking five ounces of the sulphite and eikonogen solution and adding thereto from ¼ to ½ a drachm of the potash solution as a developer, will bring out an ordinarily well exposed plate as rapidly as if a strong pyro and potash solution were employed. After the image is well out and there are some details in the shadows that do not appear, it is only necessary to add a drachm of the potash solution to the developer to easily bring them out. There is no fogging of the film whatever by the developer. Hence, though the image may appear suddenly and be well developed within a minute after the developer is applied, one need not fear to leave it on long enough to acquire sufficient density. If the developer operates too fast, it may be improved by diluting with water and adding a few grains of bromide of potassium; or the developer may be poured off and a weak bromide of potassium solution be poured on. A developer for lantern slides need not be as strong in eikonogen as for negatives. We recommend the following proportions:

Sulphite sodium C. P.,	10 gr.
Carbonate of potash,	2 gr.
Eikonogen,	5 gr.
Water (distilled or rain water),	1 oz.

The above may be used as one solution, and will develop a number of lantern slides. As soon as it begins to work slow, two or three grains of carbonate of potash added will accelerate it. The high lights will be absolutely clear, while the black portions will not be too dense for the lantern. The tone is bluish black.

Eikonogen and Soda Developer.

A.

Sodium sulphite (crystals C. P.),	4 oz.
Distilled water,	60 oz.
Eikonogen,	2 oz.

B.

Sodium carbonate (crystals),	3 oz.
Distilled water,	20 oz.

Dissolve in order named. A developer is made by adding to 3 oz. of A, 1 oz. of B.

Single Solution, Eikonogen and Soda Developer.

Sodium sulphite (crystals C. P.),	4 oz.
Sodium carbonate,	3 oz.
Distilled water,	80 oz.
Eikonogen,	1 oz.

Dissolve in the order named. Add a few drops of the hypo solution during development. All of the formulas are based on 437 1-2 grains to the ounce. The usual alum and fixing baths may be employed.

We notice that the developer permeates the film more evenly and rapidly than with pyro, and acts with an energy which is astonishing. For under exposed or instantaneously exposed plates it is especially adapted, and will make the production of such pictures a pleasure.

We have developed in seven ounces of solution twelve 10 x 12 plates in succession without replenishing it. After four plates have been developed the solution should be filtered to eliminate the floating particles of gelatine that become detached during development. The color becomes yellow when it is exhausted. It is probably unnecessary to rock the tray. We are glad to know that eikonogen is to be supplied to the trade here in large quantities. As a universal developer for dry plates it stands at the head. The American trade agents are Messrs. C. B. Richard & Co., 61 Broadway, New York City.

—*Scientific American.*

CORRESPONDENCE.

BOSTON HAPPENINGS.

Up to the date of writing there has been no meeting of the Boston Camera Club this fall. There will be one on the first Monday in October, so that whatever news is gleaned from the Boston field has to come from the personal experiences of the amateurs whom I may incidentally meet. Apropos of the new Eastman transparent film, of which such great hopes were entertained, Mr. Latimer, one of the most expert members of the club, related to me the other day his "tale of woe." It seems that he took with him a long roll of a hundred exposures on a recent trip, and every one of the negatives was a failure, owing to the fact that the tendency of these thin celluloid films, in a holder, is not to lie flat. He found that every one was either thrown out of focus or the light and shade was streaked. This seems to be the experience of several of our amateurs with the larger sizes, but I have only as yet heard of a few cases where the Kodaks which are fitted with the new films have

given much trouble. There is in every new invention some obstacle to be overcome, and I have no doubt but that in time this defect will be obviated.

Mr. Sylvester Baxter has just written for the *Herald* an article illustrated from Kodak pictures. It describes a trip of twenty-six miles taken in a horse-car. This is the longest trip that can be taken from this city, extending through Lynn and Salem to Danvers, and takes some six hours. One instantaneous shot is that of the inside of an open horse-car, and strange to say, the faces of the passengers come out distinctly. This was obtained by taking the picture as the car passed over the Beverly Bridge, where the reflection from the water illuminated the interior of the car.

I am probably as much of a disbeliever in supernatural interference in mundane affairs as any one in the city, but a wonderful instance has happened in connection with alleged spirit photography which has as yet not been explained, although a series of experiments are being made from which some startling revelations are expected. Some time ago a young man came to me with several prints, in which he was represented as seated in a chair, with spirit forms hovering over him. Of course I informed him that I would be pleased to duplicate them, if I could manipulate the plates previously. He desired me to come to his house and bring my own lens, which I refused to do, but as a compromise I promised that if he would come to the Camera Club some afternoon I would meet him there in company with one of our best amateurs and give him some sittings, on one condition, namely, that we should use our own apparatus, and that he should have nothing to do with the developing or handling of the plates. He accepted the conditions, contrary to my expectations; so last Sunday afternoon, in company with one of the best amateurs of the club, whose word is unquestionable, we commenced the experiments. We were informed that on the first few plates we need not expect any manifestations, but both of us carefully guarded against any attempt at trickery. The room was somewhat darkened by means of the shades, as it was claimed by the medium that a long exposure was necessary. The plates used were the Cramer 50, a box of which had been bought the day before and placed in my locker, of which I alone held the key. The package was not broken until just before the sitting, so that there was no possibility of double exposure, as that was one trick against which we were especially guarding, since nearly every "spirit picture" has its origin in this trick. On the first four plates there was nothing remarkable, but on the fifth, which was exposed thirty seconds, the outline of a part of the chair was plainly visible through the body of the sitter. Now I know that the reader will cynically smile and say that there was some double exposure; but aside from the word of two responsible members of the club, who were only too anxious to catch the man in some trick, and who used their own apparatus and manipulated the plates entirely, he is at perfect liberty to make an appointment with Mr. W. Wilkinson of 10 Rand Street, Boston, and try it for himself. Mr. Wilkinson is not a professional medium, but his attention was attracted some time ago to the matter by these phenomena, which appeared on photographs of himself taken by professionals. Had I not written so much I would give some more remarkable instances, but will do so in another letter, kindly asking the reader to remember that I am not a spiritualist, and desire to get to the bottom facts in the matter, as it is not the first time that similar phenomena have happened in my experience.

Mr. William Garrison Reed, of our club, is preparing a novel slide entertainment to exhibit some time during the coming winter to the club. The best work which I have seen on celluloid films were some 10 x 12 negatives of wood scenery in the White Mountains, made this summer by Mr. W. S. Briggs. While mentioning celluloid plates, I would say that every one with whom I have spoken on the subject states that the one great objection to their use is that they are filled with small, white, transparent spots. This has been my experience with some ten dozen of three different makes used this past summer.

I have heard rumors of a ladies' camera club to be soon started in this city, but cannot vouch for its truth. There is no doubt that one would be popular, as ladies are not admitted to the Boston club.

One of the brightest little poems which has ever been written on amateur photography was accepted, and will appear in *Life* shortly. It is by Miss Isabelle W. Walter of Brookline.

GREENOUGH.

OUR ENGLISH LETTER.

The chief English photographic event in August has been the convention held in St. James Hall, London. Altogether the meeting may be considered as but a partial success. To begin with the papers: The President's (Mr. Pringle) address was extremely disappointing and truth to tell, inaccurate as well as rather inclined to log-rolling in character. Instead of an unbiased and critical *résumé* of the scientific and artistic progress in Photography during the last fifty years, we have a loose and incomplete historical sketch, wherein Mr. Burton, Mr. Traill Taylor and Mr. Robinson are glorified, whilst Poitevin, Hunt, Blanquart Evrart, Adam Salomon, Rejlander and Mrs. Cameron are not mentioned at all. Further comment is needless. The *British Journal of Photography*, a trade journal, is held up as classic, and described as the first journal issued, neither of which is correct. This journal showed its true worth in connection with the publication of the Convention papers. Remarks upon this piece of sharp practice, you have no doubt seen in *Photography* and elsewhere; also in Mr. Pringle's protest sent to most of the English photographic papers. It is hard, too, to find whom Mr. Robinson has educated artistically for the last twenty-five years, since, with the exception of the works of Salomon, Rejlander and Cameron down to the members of the present movement in photographic art, there has been none, and the teachings of the members of the present movement are diametrically opposed to those of Mr. Robinson. It is a matter for great regret that such an able and independent gentleman as Mr. Pringle should have allowed his address to degenerate into special pleading on such an occasion.

Of the papers read Mr. Dallmeyer's and Mr. Bothamley's alone contain original matter. Mr. Dallmeyer's paper corroborates the teachings that I recently set forth in *Naturalistic Photography*, with one or two exceptions. Mr. Dallmeyer says: "Putting a lens entirely out of focus must necessarily destroy structure, but the introduction of spherical aberration in many instances may still maintain the structure of the image but produce a softer effect. I think that this is the only legitimate form of aberration, to soften images, although I maintain at the same time, that a perfectly well defined or sharp picture throughout is not of itself at variance with softness due to conditions of atmosphere and lighting, the latter remark being, I think, particularly applicable to studies of landscape without prominent figure."

This paragraph is singularly loose for such an able writer as Mr. Dallmeyer and shows, I think, that he has not grasped the knotty point in the argument of artistic diffusion vs. detail. For in the first place if the lens "is put *entirely* out of focus," all structure must necessarily be destroyed, so far allowed, but surely it is inconsequential and beside the point to follow that with, "but the introduction of spherical aberration, in many instances, may still maintain the structure, etc., . . . and this is the only legitimate form of aberration, to soften images." The context is rather confused and the gist appears to be, the only legitimate way of softening an image is to use a lens giving this spherical aberration and not by focusing with judgment. If this be Mr. Dallmeyer's meaning, I emphatically maintain that the softness as given by these special lenses *does not* in all, nay in most cases, meet artistic needs, but these needs can only be met by throwing different planes, as required, out of focus by focusing and the judicious use of the diaphragm. The proof is that with Mr. Dallmeyer's admirable new long focus lens, which gives spherical aberration when focused at its sharpest with open aperture, the true visual impression cannot in all, nor yet in the majority of cases be obtained. The last part of Mr. Dallmeyer's paragraph is, I think, also erroneous. I have never yet seen "a perfectly well defined or sharp picture," that was *not* at variance with the normal visual impression. What lenses may be made in the future, I know not. It is hard also to see why these remarks are *particularly applicable* to landscapes. The artistic conditions hold good in exactly the same manner in landscape as in figure subjects. I do not know if I have misunderstood Mr. Dallmeyer's paragraph, but if I have, I think I may be pardoned on account of the looseness and ambiguity in that part of his paper. It was very satisfactory to note that all the speakers were in favor of long focus lenses, both for hand cameras and other work, as I have in no uncertain voice already strongly advocated.

The next paper of interest was W. Bothamley's "orthochromatic photography with gela-

tine plates." I must, however, on artistic grounds, take exceptions to his statement that with the old gelatine plates "water, reflecting the light from the sky, is much too bright, and a slight blue haze, almost imperceptible to the eye, is sufficient to blot out all the delicate details of the distance, in which the beauty of the view so often depends." My experience and that of other artists, is exactly opposed to this. We find that in the orthocromatic plates the water is too brightly rendered in relation to the sky and that the non-rendering of aërial perspective is a serious objection to these plates. I have elsewhere suggested that the loss of those delicate *nuauces* of tone was due to "starving" the plate of silver, as is often necessarily done in their manufacture. On the other hand my own experience is the same as Mr. Bothamley's regarding the distinct tonal superiority of the Obernetter-Vogel plates over the Edwards. I find also that Edwards' plates (*sine screen*) give the faults I have cited, the water is thrown out of tone and the atmosphere brightened, and often lost and the delicate greys in the middle of the scale seem to be lost. Our ideal orthochromatic plate would be one that could be used *without* a screen and a quick plate at that, say the same rapidity as the quickest Pagets. Only approximately true impressions of nature can be obtained under those conditions, for there are other qualities, artistically as fundamental as true tonality. However, Mr. Bothamley deserves the thanks of all photographers for his able paper.

Mr. Bolas gave an interesting review of photo-mechanical processes. There are, however, a few errors in his paper, but as it does not profess to be for specialists, they are unimportant. For example, Mr. Bolas says the steel face on a plate does not affect the print. It does, however, often for the better, sometimes for the worse, as I know to my cost, for the same when applied to copper and steel gives quite different results. I am surprised, too, to see Mr. Bolas commending Herr Klic's process, for I never yet saw a Klic plate give true gradation in the blocks. The plates, too, are superficial and hence give bad prints, bad, that is, in quality. A perfect typographic block to stand the wear and tear of the printing press, is still a desideration. Finally I consider that photo-gravure printing is yet a virgin field for experiment, and I have set to work to learn what is already known, which is the first step to experiment.

Turning from the papers to the exhibits, we find the exhibition by no means representative; no exhibition can be that without Mr. Sutcliffe's truly artistic work, to say nothing of others. In wandering round the hall and gallery, I found a few gems, but they were few and far between. Mr. Davison has several frames, including his splendid "Part o' day," a picture full of poetry and charm. The lighting and sentiment are peculiarly Trozaresque and prove that the two artists have something in common—some subtle mental affinity. May Mr. Davison go on producing work of that quality. It was *facile princips* in that exhibition. Mr. Horsly Hinton has a beautiful landscape "A Winter's Morning," true in sentiment and full of poetic suggestion. There might, perhaps, have been a little finer analysis, there is, perhaps, just a little too much detail and equal massing of light and shade, still the picture is a gem. Mr. Cox-Cox shows some well-studied medæval subjects with monks and fools and caps and bells and all that goes to make a romance. Though I have no sympathy with such work, we cannot help feeling how immeasurably superior, artistically, Mr. Cox's pictures are to the work of the self-conscious nursery patch-worker school. Mr. Gate's work shows a steady advance to truthful impression, but it is still pretty and small. "Sleepy Hollow" is a sad thing—false in name, false in sentiment, clumsily posed and topographical. Far better is his "Afternoon Rest." Mr. Dresser has a charming "Evening on the Thames." The rush and life of "Towing" is admirable. Messrs. Pringle and Cembrano's Alhambra pictures are marvellous topographical works and invaluable. Mr. Friese Green's portraits show a feeling above the herd.

Of the lantern-slide exhibits, Mr. Maybridge's sèance was a great treat and lucky were those who got seats.

Finally there was snap-shooting, and blank firing, and outings, and council meetings and dinners and mutual buttered toasts and all that goes to make a convention, and excellent Mr. Briginshaw, the secretary—is still alive.

After all *Katzenjammers* had vanished, there was time to consider the *raison-d' être* of these conventions and conferences. Are they of any real use? We fear not. Did the

societies do their work properly, they would not live two years. However, they give prominence to pushing tradesmen, pushing charlatans, and a few good papers are born, a few good pictures exhibited but through it all, there comes the wrangle of the market-place and often the eloquence and superficiality of the hustings. *Mais que voulez vous?* They *dine* and the daily press shout "Photography" and they, the *bourgeois*, doat on the printed list of patrons!

An amateur has given £10 to the Photographic Society of Great Britain as the nucleus of a fund for building a museum. Not twice the amount has yet been subscribed, which shows astonishing indifference or stinginess on the part of photographers who are many of them making thousands yearly. The donor's idea is to form a "National Gallery of Photography," and a splendid idea it is, and may some energetic committee work out the idea and carry it out. Such a collection of photographs from all parts of the world would be invaluable to the scientific and artistic world. May Dr. Lindsay Johnson, the suggestor and first contributor, live to see it grow up to his ideal, but more energy must be put into it, if it is not to linger on in the shade of indifference. Why does not Dr. Johnson make it a life work, himself—a Johnsonian museum, equal in value to the Hunterian might be the result.

The consensus of opinion given at the Camera Club Conference last spring, was against hydroquinone, and I do not hear of any recrudescence of the fashion, the old Pyro and Ammonia developer being still most commonly used. The forthcoming exhibition of the Society of Great Britain is looked forward to with great interest, though I have heard some dissatisfaction expressed at certain of the judges.

The *Photographic Art Journal* for September, gives good portraits of Mr. Pringle and Mr. Briginshaw, the President and Secretary of the last Convention.

Mr. Chapman Jones has an excellent article on "Photographic Law-Makers" in *Photography* for August 29th, wherein he ably points out the futility of international congresses, as he justly says "This craze for uniformity is being pushed too far." I commend this article to our readers as, indeed, all of Mr. Chapman Jones writings, for they are generally marked by *thought* and *originality*,—two uncommon qualities in the photographic world,—here at any rate. I hope, in my next letter, to give you a critique on the Photographs at the Paris exhibition and on those at Pall Mall.

Yours faithfully,

Chiswick, Eng., 1889. P. H. Emerson, B. A. M. B. (Cantab.)

OUR CHICAGO LETTER.

This is an off month with most of the clubs, and with us; but little news that would interest other amateurs. One occasion, however, may serve as an item for your readers, and we are sorry that more of our own club did not have the opportunity to enjoy the same.

Mr. and Mrs. Geo. H. Daggett gave a little farewell party in honor of their guest, Mr. E. C. Clements of San Francisco, one of the most enthusiastic amateurs in photography it has ever been our good fortune to meet. Several months ago, our treasurer, Mr. E. J. Wagner, on a trip to California, met the gentleman and was royally entertained by him; and now, while we in Chicago intended to reciprocate the favors shown our treasurer, Mr. Clements stole a march on us, and we are under double obligations, for a rarer treat was never served to lovers of pictures. From half past eight o'clock in the evening till nearly twelve o'clock the little party of ladies and gentlemen sat and enjoyed the jolly descriptions of the grand California scenery, embracing not only city views in both Frisco and Sacramento, but the famous mountain and coast resorts, besides Santa Barbara, Monterey, Santa Cruz, and a large number of wonderfully-caught instantaneous views and beautiful Genre work. The entire set gave evidence of rare artistic skill, not only in the composition but in the beautiful and odd matting of many subjects, also beautiful toning of the slides. After the entertainment we all retired to an excellent luncheon, and not till the "wee sma' hours" were good-byes said. That evening's sojourn among the grand mountains and beautiful valleys in the Golden State will never be forgotten by us.

Our club soon get together to compare notes and prepare our interchange box of 100

slides, hoping to enliven the interest in our specialty, lantern evenings once a month, and add to our last winter's course one semi-monthly social evening.

Our city can now boast of as fine a camera club, with its beautiful reception-room and comfortable working rooms above as any city; and I understand that, while three of our own members are the most enthusiastic supporters of it they are also committed to stick by the lantern slide club also, for each seems to have its field; and while many of the amateurs have little need of the camera club, they all are, or should be, proud of it as one of the finest photographic club-rooms in America.

W. A. MORSE.

Chicago, August 31, 1889.

THE AMERICAN AMATEUR TRAVELING ABROAD.—EXPERIENCES OF OUR SPECIAL CORRESPONDENT.

Editor American Amateur Photographer:

Taking the Anchor line, steamer Anchoria, for Glasgow from New York, on August 3d, I arrived at the dock of the custom house at Londonderry in about ten days without any special incident happening to be depicted by my camera. Here the customs officers were in some doubt about my photo plate boxes being what they were represented to be, so the chief was called in. He was very polite and considerate. Being told that I had been up nearly all night and had then been two hours on a little dirty open tug boat coming from Moville (where I left the steamer, twenty miles away), he said that he would look over the box later He would lock it up in his room at the custom house, and at my convenience I could come to his office and have it examined. He said that about a month ago he had been sent a red light, with orders to use the same for the examination of photo material, and as mine was his first case, he felt bound, "you know," to carry out the orders from headquarters. Soon after I went to the custom house. The officials produced a little red-eyed bulls-eye lantern. It was finally wicked, oiled, and lighted. It burned a moment or two and then died out. They tried it several times but the thing would not burn. It evidently had no proper ventilation, or we could discover no way to give air to the lamp. So I lit my own red lamp, and in a few moments the officer had selected three boxes for me to open. I opened one of the smaller ones; showed a couple of plates; was told I need not open the others, "you know," and the show was over. The chief apologized for the trouble he had put me to; marked my box as "passed," which, after being repacked, the porter carried to the railroad depot.

The officers were very nice. One of them said he was an amateur photographer and so his knowledge of the material was of service. I gave him a copy of the AMERICAN AMATEUR PHOTOGRAPHER, containing directions for making blue prints, which he knew something about, but was very desirous of knowing more. He was very much surprised at the American way of packing plates in pasteboard boxes, "you know." He couldn't understand how they could go safely thousands of miles, by mail or "parcels post," without being packed in tins. He thought our holders were not as good as the English ones, you know, because they did not open like a book. It was useless to explain the light-tight quality of our holders and other advantages—the "chappie" would none of it—it wasn't English, you know.

I think the custom house officers (all Englishmen on Irish ground), were very nice fellows. The same class of men in America would have given four times the trouble, and might have been civil or not, just as they would feel inclined.

I left Londonderry at noon, and at three o'clock was standing upon the Giant's Causeway. There were many people on the rocks, and so curious that I was constantly attracting a crowd to see an American box camera. It was a curiosity to many of them. One young woman, good looking and intelligent, knew a good deal of photo business; explained her apparatus, and thought a tripod, dark cloth, camera, etc., would give a better picture, because you had to "give it time, you know." She was astonished when I showed some of my centennial pictures, and was anxious to know if such a "box" as mine could be procured in London. I told her it could, but I did not know where.

The Causeway is at first very disappointing, but in less than half an hour you discover its attractions. The columns usually pictured in our geographies, and even the photographs, do not show the Causeway as you see it. The supposed great basaltic columns are not there. The photos are taken at low tide (it was low tide, fortunately, when I was there), and as the camera points up to the land, the great hexagonal stones, each from two to five feet high, blend into each other. This gives an appearance of great height to columns that do not exist. I don't think a single one was more than five feet, and perhaps not that. The Causeway, as you walk down from the cliffs to the shore, is a smooth, uneven pavement of blocks in every form of hexagon, pentagon, sexagon, or prism, apparently no two alike, closely laid together. At the edges you see the separate stones, say a pentagon. It will be from one to two feet thick and from fifteen to twenty inches in diameter. It would weigh, being of heavy lava or basalt, about five hundred pounds. They are of all sizes, large and small. Some would weigh fifty pounds while others might weigh half a ton.

Glasgow is a very enterprising city. The ship-building I saw as I came up the Clyde is enough to open wide the eyes of an American. I remember back to the days when hundreds of wooden vessels were constantly on the stocks at the East River New York Yards. This exceeds all that and more too. The iron ships by the score were in all stages of construction in every yard. J. P. B.

Glasgow, August 19, 1889.

PHOTOGRAPHY AT CHAUTAUQUA.

The Chautauqua School of Photography has graduated this year, 1889, twenty-seven students, representing, in its corresponding class, twenty-four states, besides Utah, Washington Territory, Canada, Scotland, Turkey, Italy, Japan, China, Brazil, Guiana, Chili; each, one.

An enthusiastic meeting was held on August 22d, of the members of the class and their friends, at Chautauqua, addressed by Bishop Vincent, Dr. Hurlbut, and Prof. Ehrmann. Prizes were awarded and diplomas given to three of the class who were present, one of whom hails from Providence, R. I.; one from Plainfield, N. J.; and one from Buffalo, N. Y.

As the Bishop remarked, "Photography is yet in its morning at Chautauqua, and it is about 7.30 o'clock." And he indulges in a vision of some future day, when we shall have a fine new photographic building, and from all over the country people may be coming to find out something we may have discovered here.

Professor Ehrmann, of New York, who has charge of the school, is considered a very competent instructor and is held in high regard by his pupils. H. E. B.

SOCIETY REPORTS.

[Under this head we propose to publish all society matters of scientific or technical value, which are of interest to amateurs generally. Our space will not allow the insertion of mere routine matters. Reports of Field-Days, Exhibitions, etc., will be gladly received and inserted, if received previous to the 15th of each month. Secretaries will confer a favor by forwarding early reports of meetings.]

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

Regular Meeting, September 10, 1889. Swing-Back Attachment for Detective Cameras. Lantern Slides and Lantern Slide Making. "Eikonogen," the New Developer.

At the regular meeting, held at the rooms of the Society, 122 West Thirty-Sixth Street, on the evening of September 10th, Mr. J. E. Plimpton acted as chairman in the absence of President Canfield. Mr. F. C. Beach exhibited a new swing-back attachment to a detective camera, invented by Major Geo. H. Shorkley. (See paper and illustrations on page 152.) The compactness and simplicity of the attachment was one of its chief merits. Mr. Armstrong, on behalf of Anthony & Co., exhibited a walking-cane tripod, consisting of light brass

tubes, about 3-8 of an inch interior diameter, sliding over each other, telescopic fashion. Its weight was but twenty ounces. He also explained two or three new patterns of front focus cameras, gotten up by Anthony & Co. Dr. J. J. Higgins read an extract of a report on his method of developing plates by white light by the use of the ferrous oxalate developer, and supplemented the report with remarks and showed a specimen 8 x 10 photograph of the steamer Pilgrim, developed in this way, nicely framed, which he presented to the Society.

The white light he employed was that emitted from one or two gas lights. He would not dare to develop in this developer by daylight. The time required varied from fifteen minutes to one hour or more. He first dropped the plate in the developer, in absolute darkness; then, waiting for two or three minutes until it had become well wetted and impregnated with the solution, he would turn up a gas flame half way and with his body intervening between the plate and light, would examine the progress of the development. He would next cover the tray, and at intervals would examine the plate by raising the cover, removing the plate as soon as the development was completed. He would examine it at the back by reflected light, to see if the film had developed through. He judged of its density by the appearance of the surface. Pyro, he thought, acted too rapidly, but could be employed if it had picric acid mixed with it. He preferred the oxalate developer because it was cleaner and he could use it without adding any additional coloring matter? He exhibited three pictures of one person, taken first with the beard on, then with it shaved off, leaving the moustache, and lastly, with the moustaches removed. All appeared to be of a different person. It excited much amusement.

Following Dr. Higgins, Mr. Beach exhibited negatives and bromide prints, developed with the new developer, "Eikonogen." He spoke about it as follows: "I have been very much interested within the last few days in the new developer, which has been so much talked about, called "Eikonogen." The chief characteristic of it is that it is much more rapid and much more powerful in its action than pyrogallic acid, which is a well-known developer, and also that you can develop a plate with it without the least danger of having any fog or stain. With the proper precaution of adding an aniline color to it, I presume it can be used for white-light development, but the advantage is you do not have to wait fifteen minutes for your picture to come out. It will come out in two minutes and it is all over, and perfectly clear and nice. I have brought here a sample of the developer, mixed up in the proportions recommended, sixteen grains to the ounce of water, with some sulphite added. I will pass it around for inspection. I have also the tin box in which it is put up. It comes in packages of three and one-half ounces from Germany. I had a little trouble in opening it, as there are no directions given how to do it. It has what you call a tin corner spout, so that after you tear off the top seal here, you simply open the corner like a hinge, and then pour out the powder in just the amount you want. The color is similar to brown sugar, with a greenish tinge. It is much more compact than pyro. It is claimed for it that it is cheaper than pyro or hydroquinone, and that is really so; cheaper than oxalate of potash also, because, with one small amount of the developer you can develop a great many plates, and the solution keeps absolutely clear all the time. There is no fogging and no thickening of the solution.

A Member.—Can it be used the same evening, over and over again?

Mr. Beach.—Yes, sir. The printed directions say that it is advisable to give the plate a preliminary bath of hypo and bi-chloride of mercury, but I do not think that it is really necessary in practice. It is perhaps advisable, when a plate is very much under-exposed, that that bath be given.

Mr. Duffield.—Don't you think the bi-chloride of mercury would be apt to injure the plate?

Mr. Beach.—No; because the quantity is so small. It is merely a trace of the bi-chloride.

A Member.—Can it be used on stripping paper?

Mr. Beach.—Yes. I will relate my experience briefly, and I will show you the results of it, and I think you will be convinced that it will do what is claimed for it. I dissolved 480 grains in 30 ounces of water, in the proportion of 16 grains to the ounce, and to this I added 2 ounces of sulphite of soda. First you make a solution of sulphite of soda. Then you add one ounce of the "Eikonogen." I thought I would make a more concentrated solution than

that stated in the formula, but I failed to dissolve 480 grains of "Eikonogen" in 10 ounces of water. I found, after repeated stirrings with a glass rod, that it was impossible; that it would not dissolve. Therefore it stands as an absolute fact that to dissolve it you must use 30 ounces of water. If you go below that to make it stronger, it will not do it, and hence it is not as soluble as pyro or hydroquinone. I had four 8 x 10 Cramer 40 plates that I wanted to develop, and I was very anxious to try this developer. I selected a plate which had a moderately short exposure, and I thought I would not make the developer quite as powerful as the formula called for, so I went to work, and to 2 ounces of this solution, which I put into a graduate, I added 3 ounces of water, which made 5 ounces altogether. Then I thought I would be very cautious and not use any potash, but I would flow the plate over first with the solution, without adding any alkali, and I did so, and expected there would be no show of the image. But to my surprise the picture came out very quickly, and before I knew it, it was all developed. I cannot account for it unless it is that there might have been a trace of the potash in the graduate, or something of that kind, which, mixing with "Eikonogen," caused the action described. It surprised me so that I thought I had a power I never dreamed of. In order to get density I simply poured off the solution and poured on another solution, containing a little bromide of potassium, and let that rest on the plate for perhaps two or three minutes. Then I added a little bromide to the developer and then poured the whole back onto the plate, pouring off the previous bromide solution. In about three minutes I had a negative which gradually gained in density, and which was beautifully soft and full of detail. I thought if I could develop a plate without adding any alkali it was quite a discovery, so I poured the same developer over the next plate, which had had a much longer exposure, and after resting a minute, or two minutes, perhaps, there was no sign of a picture. Then I added nearly half a drachm of the potash solution to this 5 ounces of developer, which was equivalent to 10 grains of potash, and in about half a minute the picture came right out and walked right up as pretty as could be. So I kept on, one after the other, and developed four negatives, 8 x 10, with 5 ounces of developer, and during that time the developer was perfectly clear. After I had developed the plates, instead of putting the developer into a bottle —you see the air does not affect this developer like pyro and oxalate and all the others—I simply let it stand in the graduate over night, and when I looked at it in the morning it was clear, but it had changed somewhat from a greenish color to a sort of orange-yellow. Well, I was not through with it yet. I said, if I can get such nice clear, crisp negatives, I can certainly get very nice bromide prints, so I took the same negative that was developed the night before, and exposed a sheet of bromide paper behind it, and then developed that with the same developer, adding a little more potash, and obtained a very nice print; a print which is absolutely white in the high lights, not showing the slightest sign of a stain. I was so pleased with the whole operation of it that I decided to throw overboard oxalate of potash for developing regular work in the *Scientific American* office, and am going to use now "Eikonogen" entirely. I will show you the plates and you can judge for yourselves. For lantern slides there is nothing superior. (Mr. Beach then handed around negatives and prints developed with the new developer.) Here are some views of an interior of a church during service. That plate was developed with pyro, and had one hour exposure; it was made in this way: every time the congregation arose to sing the cap was put on the lens. [Laughter.] When they sat down in their seats the cap was taken off and the exposure was going on all the time. Here is a plate developed with "Eikonogen." This was exposed right against the window for almost an hour, and I found that one peculiarity of this developer was that you can face a window and it doesn't seem to blur or halo around it as much as it does when you use pyro, and the plates keep remarkably clean, not the slightest stain of any kind being observed.

A Member.—Does it stain your fingers?

Mr. Beach.—Not a bit. That is one advantage of this developer, that you can turn the negatives right out, and you haven't any fear at all but what you will get a fair negative. That negative of a dining-room is the first plate I ever developed with this new developer, and it is the one that I told you had so frightened me. All these bromide prints that I am submitting to you were developed with this new developer, and if you can find any fault

with them I hope you will mention it. Now as to burnishing or polishing bromide prints. We let the wash water drain off from the print, then lay it face down on a hand-polished sheet of hard rubber; roll over the back of the print a rubber roller to squeeze out the surplus water, then absorb the water by pressing against the print a sheet of blotting paper. Hang up to dry; then when you pull off the print it has a beautiful polish.

A Member.—Where can you purchase this developer?

Mr. Beach.—This is now sold down town by the Scovill people; the importing agents are Richard & Co., 61 Broadway.

A Member.—Can it be used for paper negatives and be stripped afterwards?

Mr. Beach.—Yes. It is a great reducing power, and if you recollect at a meeting we had last spring, we had a paper by Mr. Stebbins upon some new reducing agents. I think "Eikonogen" was one of the agents that he spoke of. I would state that I have written a paper that I intended to read, but we will consider it as read, on "Lantern Slides and Lantern Slide Making." (Mr. Beach then read a portion of his paper relating to the new developer. See Page 159.)

A Member.—Is this developer all in one bottle?

Mr. Beach.—It can be mixed in one bottle. I simply mix it up the same as I would pyro, and then add the alkali. It does not have the fogging effect upon the plate that pyro and other developers do. So all you have to do with your plate, if it is slightly over-exposed, is simply to add a little more water to the developer. I hope other members will try this agent. If you have enough solution to cover the plate it will develop all right without rocking. It seems to go right into the film, and bring out the picture equally all over.

The chairman of the House Committee states that he intends to get a supply of this "Eikonogen" and keep it for the use of the members, and I think, as it has such a long name, it will be advisable for us to coin a new name for it, and call it "Eiko."

A vote of thanks was moved and seconded to Mr. Beach for his remarks, and unanimously carried. Adjourned.

On the evening of September 27th, an exhibition of lantern slides was given, including slides contributed by the London Camera Club to the Lantern Slide Interchange. They were of fine quality.

CHICAGO CAMERA CLUB.

The members of the Chicago Camera Club had a very successful outing, September 7th. A special car on the C. B. & Q. Railway took the party to Riverside, a suburb of Chicago, and the day was spent in viewing on the picturesque Desplaines River and Salt Creek. The car was side-tracked conveniently, and at noon a delicious lunch was served on board. The day was a perfect one, and many beautiful pictures were made. Considerable interest is felt in the contest for the club medal, which is to be awarded for the best picture made at the outing.

The regular monthly meeting of the club occurred September 13th, and the announcement of the demonstration of the new developer, Eikonogen, called out a gathering which crowded the rooms. After the regular business had been transacted, the club's chemists and experimenters were called upon for their experiences, and as the club's importation of Eikonogen was one of the first in the country, great interest was manifested. Drs. Nicol and Garrison, and Profs. Bartlett, Harley, and Colegrove, briefly detailed their experiences, all of which seemed to be favorable, and, in some cases, highly laudatory of the new developing agent. Dr. Nicol, for instance, had developed two plates, exposed under exactly similar circumstances, one in pyro and the other in Eikonogen, and had obtained a much finer negative from the one developed in Eikonogen in two minutes, while the pyro negative took fully fifteen minutes; or, as he expressed it, the one in Eikonogen was fully developed, fixed, and washed before the detail was fully out with the pyro example.

At the conclusion, several lantern slides were shown upon the screen, which had been developed with Eikonogen and hydroquinone, for the purpose of comparison. The results were nearly identical, though the Eikonogen gave rather softer and warmer tones.

FRED. K. MORRILL, Secretary.

HOBOKEN CAMERA CLUB.

The regular semi-annual election of the Hoboken Camera Club took place this month at their rooms, 140 Washington Street, and the following officers were elected: President, George E. Mott; Vice-President, A. J. Thomas; Secretary, Richard Beyer; Treasurer, Charles A. Beckers; Custodian, George H. Steljes; Instruction Committee, William Allen, Charles Beckers, William Sachs; Literary Committee, A. J. Thomas, Richard Beyer, George Steljes, A. C. Ruprecht, Charles Beckers. The meeting was well attended, and a considerable amount of business was transacted.

The regular Fall Outing of the club will take place October 5th and 6th, at Conashaugh, Pike County, Pa., one of the most picturesque places in the State.

A competitive of the work of the members has been arranged. Some handsome prizes are offered, for which the members are working enthusiastically.

RICHARD BEYER, *Secretary*.

The constitution of the recently organized Schuylkill Camera Club, of Pottsville, Pa., is such a model of brevity and comprehensiveness that we publish it for the benefit of those who are interested in club matters:

Name.—The name of this association shall be The Schuylkill Camera Club.

Object.—The object of this club is to increase the knowledge of the Science and Art of Photography, to afford opportunities for exchange of experiences, and to promote good-fellowship among its members.

Officers.—The officers shall consist of a President, a Vice-President, a Secretary and a Treasurer. They shall be elected in July of each year by a majority of the members present at a regular meeting—vacancies to be filled by election. These four officers shall constitute the Executive Board, and shall have control of the general business affairs of the club. The Secretary shall be exempt from payment of all fees and dues during his term of office.

Meetings.—A regular meeting shall be held each month; time and place to be designated by the Executive Board. During the transaction of necessary business the usual parliamentary laws shall prevail, but this shall be made as short as possible, so that the time of the members can be devoted to matters of photographic interest.

Membership.—All persons desiring to promote the objects of this club shall be eligible for membership. Names for membership must be proposed at a regular monthly meeting and voted on by ballot at the next meeting. Three (3) negative votes shall exclude a candidate, but any candidate so excluded can be proposed a second time at a subsequent meeting, the same as if he had not been rejected.

Dues.—Each new member shall pay an initiation fee of one dollar ($1.00) and shall pay thereafter one dollar ($1.00) annually on the first day of January of each year. Members who are in arrears for one year shall be considered as having resigned, and their names will be dropped from the list of members.

Expulsion.—Any member who shall be clearly proved to have willfully injured the credit or interests of the society may be expelled upon a vote by ballot of three-fourths (¾) of the members present at a regular meeting. Such vote shall not be taken until the offending member shall have had full opportunity for defence.

Exhibitions.—Public exhibitions of the work of the members shall be given at least once a year, as may be determined by the club; such exhibitions to be under the management of the Executive Board.

Changes.—Changes or additions to these rules and by-laws can be made only by a two-thirds vote of all the members present at a regular monthly meeting and after due notice of the proposed changes or additions has been given in writing at a previous meeting.—*Pottsville (Pa.) Chronicle, August 7, 1889.*

PUBLISHERS' DEPARTMENT.

[In justice both to ourselves, and to those firms whose specialties are mentioned in this department, we desire to state that we neither ask nor receive compensation for such notices as are given. Any dealer or manufacturer who sends us samples of goods for notice will receive just what the merits of the goods deserve, no more and no less. Any apparatus sent us for trial and notice will be returned if so requested. This department is maintained in the interests of our readers to whom timely notice of novelties may be valuable.]

From our advertisers, A. T. Thompson & Co., we have received a number of slides of their own make, which for clearness and brilliancy are all that need be desired. Those of our readers who are in want of slides, lanterns, or stereopticons will do well to send for the firm's illustrated catalogue.

We have experimented with the Presto toning and fixing compound and the P. P. P. pyro preservative sent us by W. D. Gatchell, and we find them both as represented. The toning compound gives rich, clear tones, and the pyro preservative is undoubtedly a great antidote for the deterioration of pyro stock solutions.

Messrs. C. B. Richard & Co. have forwarded to this office a box of Eikonogen, for which they are trade agents. We have been using the formula which we gave last month for some weeks, and the more we use it the better we like it. With our present knowledge we decidedly prefer "Eiko" to any other reducing agent. It comes nearer to our idea of a universal developer than either pyro or hydro. It neither stains nor fogs, and it gives a negative full of bloom and detail, and with a bluish-black color of good printing quality. We have developed as many as thirty Kodak film negatives in six ounces of developer, which is still in working order. Further experiments may necessitate a revision of our opinion, but after using "Eiko" for a month we unhesitatingly recommend it. We advise filtering the solution before putting it away for future use. The old developer works better than the freshly mixed on time exposures.

On a recent canoe trip we had an excellent opportunity of testing both the Kodak and the new Eastman transparent film, and we are pleased with both. Of course we recognize the fact that the Kodak has its limitations and we do not recommend it as all there is to photography, but there are many times when a large box cannot be taken on an outing and when a compact, quickly manipulated camera of the magazine class is a necessity. A canoe trip is one of these cases, and from some experience with boxes of various kinds in a canoe, we think the Kodak the best of all. The new 4x5 is far superior to the original size. As for the new transparent film, we found it, if not all that is claimed for it, at least a welcome change from the bulky and heavy glass plates which have been our despair on previous canoe trips. About fifty exposures were made on the trip, mostly from the canoe, and the percentage of loss from imperfections in the film was certainly no greater than would have been taken for granted with glass. The celluloid film is evenly coated with a rich emulsion, and unless the company meet with unfortunate complications the new film will be a great help to tourist photography.

We have made several attempts in the past to prepare aristo paper, but only rarely with success. Lately, however, we have renewed our experiments with better success, owing, we believe, to the fact that we used the coating frames, paper and formulæ advertised by E. A. Gilbert, Jamestown, N. Y. The formula which Mr. Gilbert sends to all purchasers of his outfits is an improvement over any with which we have experimented, and there is no reason why amateurs should not prepare their own paper. In spite of all assertions to the contrary, aristo paper will not keep indefinitely. It is best when reasonably fresh, and with one of Gilbert's outfits the coating of the paper is not a difficult matter for one who has the skill to mix the emulsion properly. In this connection it may not be amiss to warn our readers against possible imposition by peripatetic process venders who are seeking to feather their nests by selling a poor formula and worse paper.

Messrs. E. & H. T. Anthony have sent us two bottles of their Eikonogen developing solutions, with the request that we test them. We have done so to our complete satisfaction, mostly on shutter work, for which we believe that Eiko has no equal as a bringer out of detail. For those who dislike the trouble of preparing solutions this ready-made Eiko developer can be recommended. It works as well with us as that which we prepared ourselves according to the formulæ which we published last month.

We call special attention to the advertisement of the Anti-Dark-Room Company in this issue. Their specialty revolutionizes development and does away with the stuffy dark-room. The new method was fully described in our September number, and further experiments demonstrate the value of this departure from the beaten track.

Every club should provide itself with one of Gilbert's outfits for making aristotype paper. With this outfit a skillful manipulator can easily prepare sufficient paper in an evening to supply the club members for a considerable time. The new formula works to a charm.

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United States Photographic Patents

ISSUED IN AUGUST AND SEPTEMBER, 1889.

AUGUST 27th.

409,874—Photographic Camera; George Shorkley, New York.
409,981—Photographic Lens; C. H. E. Krogmann, Cincinnati, Ohio.
410,135—Magic Lantern for advertising and other purposes; C. C. Bruckner and H. W. Thornton, New York.

SEPTEMBER 17th.

411,092—Magic Lantern; J. B. Colt, New York.
411,253—Apparatus for holding and washing photographic negatives; W. K. Moody, Boston, Mass.

List of Dark-Rooms Open to the Use of Amateurs.

LURAY INN—*Luray, Virginia.*

PROSPECT HOUSE—*Blue Mountain Lake, Hamilton Co., New York.*

HIGH FALLS HOUSE—*Dingman's Ferry, Penn.*

THE STANLEY HOUSE—*Lake Joseph, Muskoka, Ont.*

CASCADE LAKE HOUSE—*Adirondacks, N. Y.* Large dark-room with running water and a safe light. The proprietor, Mr. J. M. Otis, has long been a friend to the wandering amateur and will do all in his power to make a visit to Cascade pleasant and profitable.

HOTEL CORONADO—*San Diego, California.* Said to be the finest hotel in California. The dark-room was constructed under the special supervision of Mr. A. S. Murray, formerly the President of the Pittsburgh Society of Amateur Photographers, and is lighted by elec-

tricity, provided with spacious lockers, and fitted up with electric annunciators from the hotel office.

THE RAYMOND—*East Pasadena, California.*

SAN MARCO—*Santa Barbara, California.*

DEL MONTE—*Monterey, California.*

SPENCER HOUSE—*Niagara Falls, New York.*

SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*

FORT WILLIAM HENRY HOTEL—*Lake George, New York.*

PROFILE HOUSE—*White Mountains, New Hampshire.*

THE WESTPORT INN—*Westport, New York.* Has a dark-room with running water.

BREEZE LAWN—*Hunter, New York.* Has a dark-room with running water.

LAKE VIEW HOUSE—*Bolton, Lake George, New York.*

MOUNTAIN PARK HOTEL—*Hot Springs, North Carolina.* The dark room has running water.

[We shall be obliged if our friends will send us the names of other hotels or houses that have special dark-rooms for the use of amateurs.]

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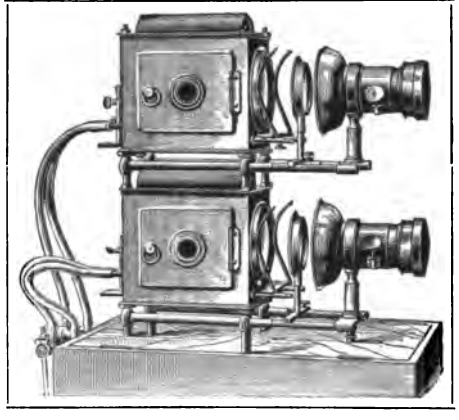
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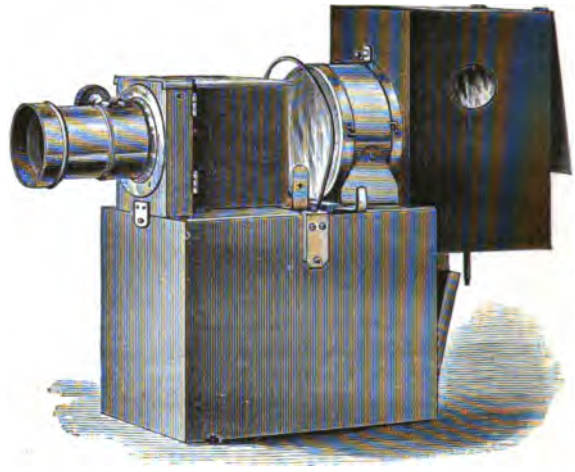
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A YEAR AGO we placed on the market, in a limited way, the best article in a sensitized collodion paper ("Aristo") that then had been produced.

IN THE FACE OF several serious defects, the professional and amateur trade appreciated so many marked advantages in this paper over albumen, that it so much encouraged us as to lead us to invest much more capital in the enterprise for the purpose of bringing the process to absolute perfection.

AFTER A SHUT-DOWN of nearly five months, during which time we have been prosecuting an exhaustive line of experiments under the direction of the best chemical talent money could secure, we are pleased to announce that we have ready for market an absolutely perfect sensitized collodion printing process at prices that make it commercially practical.

THE PHOTOGRAPHER can now produce a picture in definition, tone, brilliancy, finish, and durability, far superior to the albumen process without the trouble of silvering, drying, or fuming.

THE PAPER leaves our factory as old as it ever will be, so far as practical results of manipulation are concerned. It contains preserving chemicals that are reached reliably by our toning outfit whether it be one week or twelve months after it leaves our factory.

WHILE the toning solutions are impractical for the photographer to compound himself, we put them up in convenient form all measured in exact proportions for less than the cost of compounding the ordinary albumen formula.

TO OUR FRIENDS who have been placed in the exasperating position of having "Aristo" taken away from them by our shut-down, we have only to say that it was a necessity to reach the gratifying results we have now to offer, and that our solace must be theirs, viz.: that in the new "Aristo" we now have a product that is thoroughly reliable under all conditions and a few weeks' loss is insignificant in the prospect of many years enjoyment of it.

Awaiting your orders, we are,

Fraternally yours,

AMERICAN ARISTOTYPE CO.

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AND ANNOUNCEMENT.

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AMERICAN ARISTOTYPE CO.

Jamestown, N. Y.



By George A. Nelson. Barentzen Photogravure Co.

HE VILLAGE BLACKSMITH

THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., NOVEMBER, 1889. No. 5.

Our Illustration.

WE present our readers with the third in our series of exhibition pictures. Mr. Nelson's "Village Blacksmith" was one of an exhibit which won a diploma, and it is characterized by excellent lighting, good grouping, and richness of detail. The photogravures which, although fine specimens of careful work, fail to do the original full justice, were made by Mr. Joseph H. Wheeler, Boston, Mass., by the Barentzen process.

How a Professional Prints and Tones.

IN the matter of printing and toning there is a wide difference between the professional and his amateur brother. Long practice has given the professional printer a sure mastery of his work which is usually wanting to the amateur. The professional has an easy mastery of his methods which but few amateurs attain to. The beautiful tones which are a matter of course to him of the studio are the envy and despair of him who finds the kitchen his only workshop. It is not, however, impossible for the amateur to rival the professional in the quality of his prints; many a one does so. But he does it by imitating the methods of the studio. For such as he this article will have little value. It is written solely for that large band of workers whose only means of attaining to photographic knowledge is the slow, sure, but expensive one of experience, a method which has greater advantages for the stock dealer than for his patrons. For such as these this true, exhaustive, and entertaining account of a day in a professional printing room may hold a value beyond its intrinsic merits.

To begin at the beginning, as the children say, the professional sensitizes his own paper; he is not to be beguiled by the praises of ready sensitized paper, be they sung never so sweetly. Early in the morning he estimates

the number of sheets he is likely to need for the day's printing, and floats them about three minutes on a sixty grain bath of pure silver nitrate, no other chemicals being added, as he finds silver nitrate all that is needed. In winter the bath is run up to eighty grains to the ounce, and it is at all times kept up to its full strength by the addition of fresh silver crystals after the day's silvering is done. The bath is frequently sunned, and occasionally boiled down to free it of organic matter. After sensitizing, each sheet is laid, face down, on a sheet of blotting paper, covered with a second blotter, and blotted dry; it is then pinned to wooden cleats let into the wall, and left until bone dry. The next step is fuming, which is done in a fuming box, and occupies about fifteen minutes' time for each sheet. Then comes the printing. The negatives are placed in the frames, dusted with a camel's hair brush, and covered with the paper, cut to size.

If the sun is shining, the frames are protected by one or more sheets of ground glass, according to the density of the negatives, and the printing is carried to a depth which would astonish the average amateur who has never seen a professional printer at work. When the prints leave the frames they have no semblance of beauty, being very much overdone. The toning baths commonly used by amateurs would be powerless to overcome this more than Egyptian darkness. But our professional friend has an easy remedy in the shape of kitchen salt, which, when introduced into the toning bath, has a strong bleaching action, while the deep printing produces the rich dark tones which most amateurs find so difficult to manage, for the simple reason that they have not the courage to print strong enough.

When the day's printing is finished, the prints are trimmed, and then treated to a five-minutes immersion in dilute acetic acid of no particular strength, sufficient being added to clean water to make it taste sour. After the acid treatment, the prints are washed in two or three changes of water. In the meantime the toner has made up his toning bath, which is composed of bicarbonate of soda, chloride of sodium, and chloride of gold in proportions which the toner would be puzzled to give to the anxious seeker after photographic truth. Like the cook, he uses a pinch of this and a pinch of that, until his intuition, trained by long practice, tells him he has enough of each. It would be hardly safe for the beginner to adopt this rule-of-thumb method, and, as a Yankee guess, we would advise him to use one grain of gold for each half sheet of paper to be toned, of the bicarbonate about ten grains, and of salt, twenty grains. This bath keeps well, numerous text-books to the contrary notwithstanding, and need not be thrown away. The above quantities of chemicals are dissolved in ten ounces of water.

The prints are kept in motion, and occasionally turned over while in the bath, and are toned until the shadows assume a rich lilac hue by reflected light. As fast as the prints are toned they are placed in a tray of clean water, and when the toning is completed they are fixed for fifteen minutes in

a 1 to 6 hypo solution, to which a little ammonia has been added. After fixing, the prints are thoroughly washed, usually being left in water over night, which we regard as useless, if not positively injurious; they are then mounted and burnished.

The careful reader of this screed will have discovered that all there is in it is deep printing and salt, and we trust that he will not be afraid to use them and a modicum of brains.

Chapters for Beginners.

II.

FIELD WORK.

THE average photographic neophyte begins his career with the camera by attempting to photograph the members of his family, usually much to their disgust and his own disappointment. Portraiture is one of the most difficult branches of photographic work, and should not be attempted until some degree of skill has been gained by practice in the open, and not then unless the beginner is provided with a fairly good rectilinear lens. The beginner should make his first attempts along the country side, on the picturesque bits which abound in the most unpromising localities. I have yet to see the locality where the seeing eye cannot find material for pictures. It is one of the advantages of photography that it gradually trains the eye to detect beauties previously unsuspected. It is in this educative side that the chief value of our art is to be sought, independently of any tangible results in the form of pictures. "Photography for photography's sake" should be the motto of every earnest worker.

Field work of an earnest kind has many difficulties which only constant practice can overcome, but it has its sure reward in every counterfeit presentment of Nature which the faithful lens registers on the sensitive film. I am not one of those who believe that landscape photography can be taught in books. It can be learned only from Dame Nature herself, and I would lay it down as the very first essential of all successful work that the photographer be a lover of Nature, keenly alive to all her varying moods. Only so can he hope to catch the supreme charm of wood and open, of hedge-row and streamlet. Love is the key which opens all locks, and he who would go forth with camera in hand to translate into printed picture Nature's charms must first of all be Nature's lover.

The greatest difficulty I encountered in my early efforts in this line was in learning the proper lighting for the subjects which I attempted to portray, and while I am very far from a perfect learning of the lesson, and am but a learner still, I have gathered a few bits of experience, which may be helpful to those for whom I write.

Since a concrete example is far better than mere abstract reasoning, I

will ask my readers to accompany me on a short trip in search of picturesque bits. As I like best the early morning or the late afternoon hours, we will take an early start in order to reach the scene of action before the sun has mounted high in the heavens and so ruined the long cast shadows which have so much to do in building up a picture. Our objective point is a certain brook, which, winding through the meadows, abounds in what the artists call "motives." We will take our whole plate outfit, since we are likely to find a subject or two which, if not badly bungled, may do for exhibition purposes, and the whole plate print is about the smallest size which is dignified enough for exhibition. We take two lenses, a single landscape lens of ten inch focus, and a doublet of somewhat longer focus. Gathering up all the paraphernalia, and taking a last look around to see that nothing is forgotten, we sally forth, and an hour's brisk walking brings us to the brookside just where it runs under a rustic fence, below which it widens out into a pool which mirrors the trees and shrubs growing on its banks. On either side maples and elms frame in a view which delights the eye. Beyond the fence is a stretch of green sward, bounded by a stone wall and trees. In the distance a mountain of some pretensions to size bounds the view. We have all the elements of a picture, if the lighting is good. Before determining that point we must find the best position for the camera. We will use the single lens, in order to bring out all the brilliancy possible, and we will place the camera on the right bank of the brook in order to avoid facing the sun. We plant the camera far enough back from the fence to include the pool and proceed to focus, using a large diaphragm. In order to bring the foreground into focus we find it necessary to tilt the top of the swing-back out from the camera. We also find it necessary to raise the sliding front to bring the sky line down. The edges of the image on the screen are not sufficiently sharp, showing that we must use a smaller stop. As I prefer to use the largest stop that will give good definition, owing to a belief that exceedingly small stops are fatal to atmospheric effect, we will first insert the next smaller stop, and try the effect. The definition is better, but not what it should be, so we try the middle stop, and find matters as they should be. Now we have to consider the question of lighting. The general direction of the light is good, but that clump of weeds on the bank is in the shadow; the picture will be greatly improved if we can light them up a bit. A glance at the sun shows us that we shall not have to wait long to get the effect we want.

While we are waiting for the sun to swing clear of the large elm, we will consider the question of exposure. More errors are made in the time of exposure than in any other point in the taking of a picture. But an error in exposure means a negative of inferior quality, do what we will to counteract it in development. Many factors enter into the length of exposure: the quality of the light, the character of the subject, the focal length of the lens, the size of the diaphragm, and many others. Even the most expert go astray now and then. There is no mechanical means of determining to a certainty

the proper exposure for every view. The knowledge must come by experience. I have long accustomed myself to appreciate the time of exposure by the appearance of the image on the focusing screen; the brighter the image appears, the shorter the exposure. I am not infallible; I frequently make mistakes in this as in other matters, but on the whole I prefer this method of determining the time of exposure to any other. A little experience gives the knowledge necessary to determine the question.

The sun is now about right, the tops of the weeds are in strong light. An examination of the focusing screen shows us a bright image except in the shadows. If we only cared to get detail in the brightly lighted portions a very brief exposure would answer, even with the No. 15 plates we are using.

A careful examination of the shadows, aided by past experience, leads us to believe that an exposure of five seconds will be about right. We remove the focusing frame, substitute the plate-holder, and carefully covering the camera with the focusing cloth, we draw the slide, remove the cap for five seconds, and our picture is taken. As this is the record of a picture actually taken under precisely the conditions here described, I may say that later on the application of a normal soda-pyro developer produced a negative which was eminently satisfactory. Before seeking other views we make an entry of all the conditions under which this view was made, in a note-book which we keep for this purpose. This enables us at any time to know exactly the genesis of any negative.

A short distance below, the brook leaves the meadow and enters the forest, and abounds in shaded pools which are well worth taking. One of these pools furnishes an especially pleasing subject, a broad expanse of smooth water reflecting the shrubs and trees growing on the bank, with a glimpse of a sunlit hill-side in the distance. This we take, giving an exposure this time of only three seconds, as the whole subject is well lighted with very little of deep shadow and that well brought out by the strong light reflected from the surface of the pool. A walk along the brookside reveals a picture at every turn, but we will not stop to take them now, but hasten home to put our work to the test of development, which will form the subject of our next chapter.

AN OLD HAND.

Club Sketches.

No. II.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

ON December 4, 1860, there met at the house of Mr. Constant Guilloû, by his invitation, a little company of gentlemen interested in amateur photography, who came together with a view to forming an association, whose reunions would be agreeable and beneficial, affording an opportunity for full and free interchange of views relative to their favorite pursuit.

EXPLANATION AND ANNOUNCEMENT.

A YEAR AGO we placed on the market, in a limited way, the best article in a sensitized collodion paper ("Aristo") that then had been produced.

IN THE FACE OF several serious defects, the professional and amateur trade appreciated so many marked advantages in this paper over albumen, that it so much encouraged us as to lead us to invest much more capital in the enterprise for the purpose of bringing the process to absolute perfection.

AFTER A SHUT-DOWN of nearly five months, during which time we have been prosecuting an exhaustive line of experiments under the direction of the best chemical talent money could secure, we are pleased to announce that we have ready for market an absolutely perfect sensitized collodion printing process at prices that make it commercially practical.

THE PHOTOGRAPHER can now produce a picture in definition, tone, brilliancy, finish, and durability, far superior to the albumen process without the trouble of silvering, drying, or fuming.

THE PAPER leaves our factory as old as it ever will be, so far as practical results of manipulation are concerned. It contains preserving chemicals that are reached reliably by our toning outfit whether it be one week or twelve months after it leaves our factory.

WHILE the toning solutions are impractical for the photographer to compound himself, we put them up in convenient form all measured in exact proportions for less than the cost of compounding the ordinary albumen formula.

TO OUR FRIENDS who have been placed in the exasperating position of having "Aristo" taken away from them by our shut-down, we have only to say that it was a necessity to reach the gratifying results we have now to offer, and that our solace must be theirs, viz.: that in the new "Aristo" we now have a product that is thoroughly reliable under all conditions and a few weeks' loss is insignificant in the prospect of many years enjoyment of it.

Awaiting your orders, we are,

Fraternally yours,

AMERICAN ARISTOTYPE CO.

5-1yr. JAMESTOWN, N. Y.

In 1886 a general photographic exhibition was held in the galleries of the Pennsylvania Academy of the Fine Arts, which was participated in by photographers from many parts of the world. As an outgrowth of this exhibition the "Joint Exhibition" agreement, in connection with the Boston Camera Club and the Society of Amateur Photographers of New York was made, and the third exhibition of this series was held with great success in April of the present year.

The impetus given to photography, particularly among amateurs, by the introduction of commercially prepared dry plates added greatly to the membership of the Society and, having outgrown its room at No. 520 Walnut Street, its headquarters were transferred to No. 31 South Fifteenth Street. Further increase in membership soon necessitated more ample accommodations and the Society moved into its present home at No. 1305 Arch Street.



THE MEETING ROOM.

The meeting room measures about thirty by forty feet, being lighted by an almost continuous series of large windows on its northern side and several others in the southern wall, thus affording an abundance of light and ventilation. The room contains the library of over three hundred volumes, probably one of the most valuable collections of works on photography in the country. There are also several reading tables filled with the current photographic literature of the day. A convenient dark-room is connected with the meeting room, to which members have free access at all times and which affords all necessary facilities for demonstrations, etc., at meetings. The

walls of the meeting room are adorned with many beautiful specimens of photography, in part the work of members and representing also much fine work by other photographers of note. Numerous albums and cabinets also contain pictorial records of the work of the Society since its organization.

The regular business and technical meetings are held on the first Wednesday evening of each month, and on the third Wednesday informal "conversational meetings" are held, devoted to social intercourse and the exhibition of lantern slides. For this purpose, the society possesses a fine oxyhydrogen optical lantern, and a large space on one of the walls has been finished in white to serve in place of the usual screen. The slides contributed by the various organizations connected with the American Lantern Slide Interchange are shown at these meetings as well as those which may be brought by the members.

On April 24, 1885, the Society was granted a charter of incorporation under the laws of the State of Pennsylvania. Its condition at present is most flourishing, the Active and Life membership now amounting to about two hundred and twenty-five, in addition to Honorary and Corresponding members. The present officers are President, Frederick Graff; Vice-Presidents, John G. Bullock and Joseph H. Burroughs; Secretary, Robert S. Redfield; and Treasurer, Samuel M. Fox.

ROBERT S. REDFIELD.



By George A Nelson. Barentzen Photogravure Co

THE VILLAGE BLACKSMITH.

Home-Made Optical Lantern.

In Fig. 1, A is the base of the lantern, eight by sixteen inches, made of half-inch pine and braced with four battens, also of half-inch stuff, glued and nailed to its under side in the position shown by the dotted lines B Three pieces, C C C, half an inch square, are nailed to the base, forming a square seven and one-half by seven and one-half inches. To these the bottom of the lantern body is fastened, as seen at D D.

Three others, E E F, serve to keep the lamp—a McAllister's Bi-unial—in place. The position of the front one, F, depends on the focal length of the condensers, and had best be found by experiment. Two oblong holes H H, cut through the bottom, give draft to the lamp; and four furniture tacks, with large brass heads, driven into the bottom at the corners, act as short legs to keep the lantern up and allow the passage of air under it. The dotted line K gives the shape of the door, which is at the rear end.

The body L, Fig. 2, is of sheet iron, seven and one-half by seven and one-half by eleven inches, and has a door in the rear, a round hole in front where the condensers come and an eliptical hole in the top large enough to give the chimney plenty of room. Two pieces of half-inch wood, M M, separated by another piece, N, and by the smaller piece R, and by its mate, on the other side (not seen in the figure) stand in front of the body, having holes at the top slightly smaller than the diameter of the condensers. To these are fastened pieces of half-inch wood, P P, sawed by a jig-saw into half circles. To the inner edges of these is fastened, by small wire nails, the half cylinder, Q, made of tin plate; and on this the condensers rest. Another half cylinder, S, made in the same way, only that the half circles, T, are detached from M, is hinged to the lower one and acts as a cover to prevent the escape of light. This allows the condensers to be got at readily when it is desired to clean them, and it also makes it easy to take them out and roll them in woolen cloth when it is desired to carry the lantern out on a cold night. If allowed to get chilled, they will sweat when brought into a warm room.

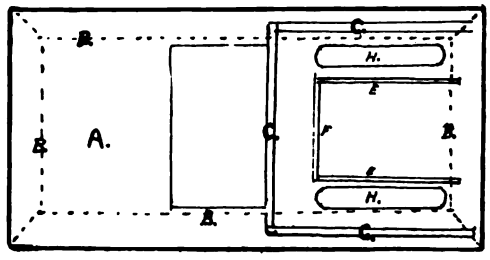
A condenser net, not so good looking, but simpler and easier to construct, is shown at U, the condensers being held in a square box. The condensers to be mounted as seen at V. A piece of sheet brass, having two parallel grooves made with a tinsmith's beader, is wrapped round the two lenses, leaving end enough to lap rather more than an inch. Another narrower strip is then brought round and the ends fastened together with solder. Mounted in this way, the lenses are held rigidly in place and at the same time there is spring enough to the brass to allow the glass to expand when heated. Two pieces of wood, W, having grooves cut in their inner edges for the slides to fit into, are fastened to the front of the condenser next, and to these, in turn, is fastened the wooden ring, X. This holds a cylinder of tin, over which in telescope fashion, fits another tin cylinder having a wooden end, to which is fastened the lens Z.

When turning up the wicks, the eye should be held low, so as to look under the flame drum of the lamp. In that way an image of the flame is seen reflected on the surface of the condenser.

One price list quotes mounting of condensers: "In brass, $4.50 to $5.00 per pair; in, tin, $1.50 to $2.00 per pair." Mine cost twelve cents to mount; and the whole cost of making the lantern, exclusive of condensers, lamp, and lens, which had to be bought, was less than one-half a dollar.

R. G. N. SWIFT.

Fig. 1.



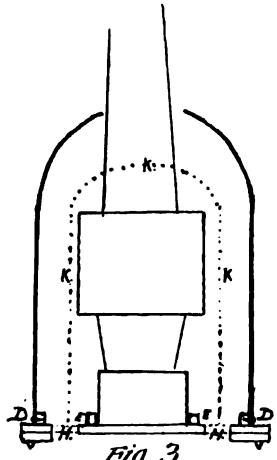


Fig 3

Fig. 2.

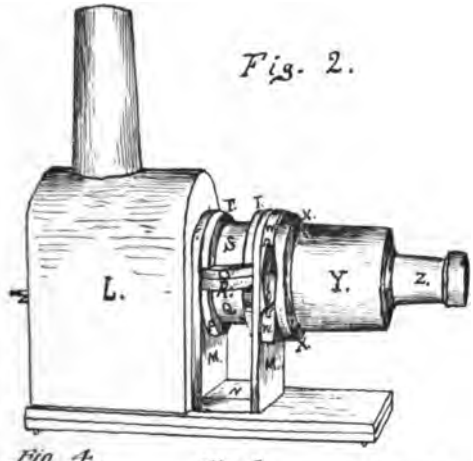


Fig 4.

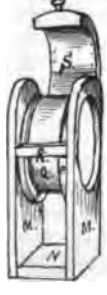


Fig. 5.

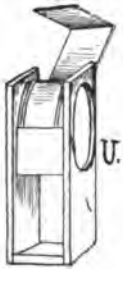


Fig. 7.



Fig. 6.



OPTICAL LANTERN.

THE

AMERICAN AMATEUR PHOTOGRAPHER

A Monthly Review of Amateur Photography.

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EDITORS:

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Items of general interest upon photographic subjects will be gladly received.

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EDITORIAL COMMENT.

Several interesting articles are crowded out of this number and will appear in the next issue.

Certain criticisms having reached us of the custom prevailing with the photographic journals of publishing reports of society meetings, we deem it expedient to say a few words in defense of the practice. The society feature of amateur photography is one which plays a large part in its development and no live journal can afford to neglect society work. Most of the most interesting and valuable photographic papers now published would never have been written except in response to the appeal of some society. These papers are of great help to other amateurs and it would be a pity if they were not published. But it is quite a different matter with the record of the merely parliamentary routine of the regular meetings. This interests none but the members, and has no reason for finding its way into the columns of the photographic press. A brief summary of the meetings is all that is necessary or desirable, and it is all that we intend to publish. We shall be pleased to receive full reports of all meetings, but we shall exercise the editorial prerogative of cutting them down to the smallest dimensions consistent with accuracy.

Our October number has called forth much favorable comment from the press throughout the country and has brought us many words of congratulation from our friends. A pleasant result of the excellence of the number is the large addition to our subscription list which it has been the means of producing. While we cannot promise an illustrated descriptive sketch with every issue, we can promise our friends some rare treats in this line in future numbers from the rich store of material which has been placed at our disposal. It is our intention to make the magazine something more than a mere monthly record of photographic technicalities.

After mature deliberation we have concluded to make the January issue the holiday number instead of the December, as previously announced. This will give the judges longer time to come to a decision and allow us ample time in which to have the blocks made. The names of the judges will be announced in the December number. The time for receiving entries for competition is extended to November 15th. We have received a number of entries representing much good photographic work, and the indications are that our holiday number will be a notable event in American photographic journalism. As we shall not print an extremely large edition of the holiday number, those who wish to secure copies will do well to send in their orders early to avoid disappointment.

The *San Francisco Examiner* for October 4th, contains a lengthy and graphic description of a raid recently made on the stock of that genial dealer, Mr. S. C. Partridge, by a wild cow, who seems to have had a strongly developed mania for a camera. Dry plates, developers, cameras, and other photographic commodities disappeared as if by magic, and it was only after a stubborn fight that this novel species of "camera fiend" was driven from the field. The report does not state how many copies of THE AMERICAN AMATEUR PHOTOGRAPHER were appropriated by this photographic cow.

Some of our readers have expressed a wish that we would establish a Query and Answer Column in which they might ask the advice of other amateurs. We have had such a department in mind from the outset, and this month we begin what we hope will prove a valuable feature of the magazine, and we invite our readers to make the freest use of it. Such questions as the editors may not be able to answer from their own experience will be referred to a veteran photographer for solution.

We wish to thank the many readers of the magazine who have written us kindly words of appreciation of our efforts in photographic literature, words which are a help to us and which we would like to publish did we not feel that we have no right to use our space in such selfish ways. But we cannot refrain from this public mention of the fact that the editorial sanctum is not without these proofs that THE AMERICAN AMATEUR PHOTOGRAPHER is rapidly winning friends, even though we do not think it necessary to publish them to the exclusion of other matter of a more general interest.

Oxalo-Molybdic Acid Prints.—We have recently been making some experiments with this light-sensitive compound, but with only moderately satisfactory results. An exposure of half an hour to bright sunlight under a negative of average density gave a vigorous print in blue. The application of heat deepened the color somewhat, but did not produce the black tone we expected to obtain, and the print was easily washed out in water. We shall continue our experiments and hope to be able to report more positive results in our next issue.

Gilbert's Aristotype Process.—Mr. Gilbert informs us that he has discovered that only a certain number of prints can be toned in his combination bath before the acid from the prints causes a liberation of sulphur which yellows the prints. For this reason he advises the use of a separate toning and fixing bath.

Deserved Honors.—The Eastman Company have been awarded a gold medal for their permanent bromide paper by the photographic jury of the Paris Exposition. The paper was entered in competition with other makes of bromide paper and with all other papers used for enlarging purposes.

Eikonogen.—Mr. Will H. Mowrey of Beatty's Studio, Milford, Mass., writes us that he has been using eikonogen exclusively for regular gallery work for some time with the best results, and he regards it as superior to either pyro or hydro. "No matter how short the exposure," he writes, "it will not produce the black and white that either pyro or hydro will with the same exposure. It is undoubtedly the best reducer so far made." As Mr. Mowrey has been known as an enthusiastic admirer of hydro this is high praise for the new reducer, and our own experience abundantly confirms Mr. Mowrey's estimate. We are now using it exclusively in all our work.

Eikonogen.—Dr. Eder considers this new reagent as about equal to pyro and hydroquinone, but in no way superior to them. M. Leon Vidal considers it especially valuable for very short exposures, and gives the following points in its favor: Its freedom from discoloration

when in contact with the atmosphere; the clearness of the negatives and the consequent rapidity of printing, and the rapidity of development.

Herr Kindermann, in the *Deutsche Photographen Zeitung*, writes that he has discarded the ferrous oxalate developer for eikonogen, and Prof. Rietschel considers it much more powerful than hydroquinone, a plate which gave no signs of an image with hydroquinone, having given an excellent negative after washing and development with eikonogen.

St. Mark's Camera Club.—Still another camera club has been organized. This time it is at St. Mark's School, Southboro, Mass., and it starts out with eleven members. Mr. R. DeP. Tytus is secretary. We wish the new club much pleasure and profit from its meetings.

An American Firm Honored Abroad.—Messrs. Stirn & Lyon received the silver medal at the Photographic Exposition at Cologne, and a bronze medal at the Berlin Exposition for their Concealed Vest Camera which was given an "honorable mention" at the Florence (Italy) Exposition, making three bronze and two silver medals awarded to their camera within two years.

The Lynn Camera Club will soon move into the new quarters now being erected for them at No. 42 Broad Street. The building is two stories in height with a flat roof, and was designed especially for the club by Mr. E. L. Rogers, the librarian, aided by the committee on rooms, Messrs. Drew, Bacheller, and Russell. The building is 30 x 40 feet, and the dark room occupies one-quarter of it and is fitted with all the usual appliances, including Mr. Simpson's electric light exposing apparatus recently described and illustrated in THE AMERICAN AMATEUR PHOTOGRAPHER. The building is to be lighted throughout by electricity. As soon as the negatives can be made we shall give our readers a more extended description with illustrations.

Awards to American Exhibitors in Photography at the Paris Exposition.—Grand Prizes, or Diplomas of Honor—United States Geological Survey, Washington, D. C. Gold Medals—Henry F. Rowland, Baltimore, Md.; George Barker, Niagara Falls, N. Y.; University of California, Berkeley, Cal.; Eastman Dry Plate and Film Company, Rochester, N. Y. Silver Medals—Louis Alman, New York; Baldwin Coolidge, Boston, Mass.; D. K. Clark, Chicago, Ill.; F. W. Guerin, St. Louis, Mo.; John A. Scholten, St. Louis, Mo.; — Stein, Milwaukee, Wis.; H. Tabor, San Francisco, Cal. Bronze Medals—James Landy, Cincinnati, Ohio; Lafayette W. Seavey, New York; Ernest Marx, Plainfield, N. J.; Society of Amateur Photographers, New York; — Thors, San Francisco, Cal. Honorable Mention—J. H. Beale, New York; Benoit Black, Brooklyn, N. Y.; C. G. Cox, New York; — Loyd, Troy, N. Y.; E. Rider, Cleveland, Ohio; Smith & Pattison, Chicago, Ill.; G. B. Wood, Philadelphia, Pa.

The Humboldt Club is a Fall River, Mass., organization "for the study of Nature and the discussion of scientific subjects." From the official programme of events for the coming season we learn that the club is interested in photography, at least we infer as much from the fact that we find "Photographic Exhibit" down for one evening and "Film Photography" for another.

We continue our series of illustrated Club Sketches with Mr. Redfield's interesting sketch of the Philadelphia Club, the oldest in the country. We hope to be able to give from time to time other sketches until we have illustrated the homes of all the leading clubs. We are promised a sketch of the new Lynn Camera Club House, and we repeat our invitation to other clubs to have sketches and views prepared and sent to us for publication.

At the regular October meeting of the Philadelphia Photographic Society, Dr. Charles L. Mitchell read a paper on "Eikonogen." His experiments had been confined to the making of lantern slides and had resulted very successfully, development with eikonogen being much more rapid than with hydroquinone and giving a greater amount of detail. The formula used was weaker than that recommended by the discover of the new agent, and was compounded as follows:

No. 1—Eikonogen,	½ ounce.
Sulphite of sodium, crystals,	1 ounce.
Water,	1 pint.
No. 2—Carbonate of sodium, crystals,	¾ ounce.
Water,	1 pint.

Normal developer, one part each of No. 1 and No. 2 and two parts of water.

The color of the slides was stated to vary according to the strength of the developer. With the normal developer the color is a clear bluish-black, graduating to a beautiful gray in the lighter portions. If the proportion of No. 2 be reduced one-half and the proportion of water doubled, and a correspondingly longer exposure be given, warm brownish or gray tones are obtained.

The Lowell Camera Club will hold a non-competitive exhibition of Photographic work at Morrill's Studio, Lowell, Mass., November 12th to 16th inclusive. The object of these exhibitions, as stated in the circular of announcement, "is not so much to decide upon the relative merits of the works of the exhibitors as to afford an opportunity to all interested in amateur photography to see what has been done by all, and to give each exhibitor an opportunity to see his own work beside that of others." All are invited to contribute specimens of their work, whether beginners or experienced amateurs. The Lowell Club here sets an example which is worthy of general imitation. Such open, non-competitive exhibitions encourage timid souls, who have not the courage to enter their work in competition with that of others, to exhibit the results of their photographic work with that of others, besides removing the sometimes dangerous element of competition. They are rather the generous emulation of kindred spirits than the rivalry of eager claimants for honors. We believe that it is the duty of photographic clubs to do all in their power to encourage the growth of photography beyond their own pale; that they should be teachers of the art to outsiders, not merely places where the members may meet for their own amusement or instruction, and in these non-competitive exhibitions open to all, we recognize a disposition to fulfill a portion at least of this higher mission. The AMERICAN AMATEUR PHOTOGRAPHY will have a representative at the exhibition of the Lowell Club, and will give its readers a report of the exhibits in the December number. We append the simple rules governing the exhibitions, and advise such of our readers as can do so to send pictures and to visit the exhibition:

1.—Photographs may be mounted in any way the contributor may choose, but the hanging committee would prefer that all prints smaller than 5x8 inches be grouped on larger mounts for convenience in hanging. 2.—All classes of work may be sent, including enlargements and transparencies. Sets of lantern slides should be mounted in frames. 3.—When two or more pictures are to be exhibited a designating letter shall be placed under the center of each, and the title of each picture shall be entered opposite the corresponding letter on the entry card, which must be sent with the pictures. 4.—Exhibits must be sent to Morrill's studio, Central Block, on or before Monday, November 11th 5.—All exhibits will be received and hung by the hanging committee, who will also re-pack the pictures after the exhibition. The packages will be left at the studio to be called for by the contributors, unless the committee is instructed to return them by express. 6.—Packages by express should be marked "LOWELL CAMERA CLUB, care of F. L. Morrill, Central Block, Lowell, Mass." Packages by mail should be sent to Geo. A. Nelson, 81 Appleton Street, Lowell, Mass.

Lyonel Clark, honorary librarian of the London Camera Club, continues his useful and numerous experiments on development. He operated with pyrogallic acid, oxalate of iron and hydroquinone, under the most varied circumstances, and made known his results to the photographic conference. To resume in a few words the practical conclusions of his work. Mr. Clark is of the opinion that hydroquinone will never take the place of pyrogallic acid in the development of ordinary negatives; in many respects this last is superior to it; it is much cheaper; beside, with hydroquinone, greenish fogs are produced. At most, he thinks, this last will be used for the development of transparent lantern plates, the only case in which it is really a little superior to the other developers, on account of the color of the deposit which it produces.

Herr Alfred Steiglitz recently published a formula for toning aristo prints with platinum, which works very well and yields a number of different tones. The prints are more durable than those toned with gold, as platinum is not affected by sulphureted hydrogen or other gases. The formula is as follows:

a.—Oxalate of potassium,	3 ounces.
Phosphate of potassium,	1½ ounces.
Water,	34 ounces.
b.—Potassium, platino-chloride,	15 grains.
Water,	5 drams.

The bath is formed by mixing six volumes of *a* with one volume of *b*. The prints must be

washed before immersion in the toning bath, and in other particulars the toning is accomplished as usual with aristo prints.

Dr. F. Mallmann has succeeded in intensifying gelatine negatives with old hydrochinon developer instead of with ammonia or sodium sulphite, after being whitened with bi-chloride of mercury, and being thoroughly washed. The hydrochinon developer produces extreme intensity of a bluish-black color.

C. A. CHANDLER, *in the Boston Globe.*

The Photographic Society of Philadelphia.—For one month, beginning with the stated meeting on December 4th, there will be held at the room of the society an exhibition of photographs made by members, from which there will be selected four specimens to be known as the "Honor Pictures" of the year. The decision will be made by ballots cast by members and will be announced at the January meeting. The pictures selected—or copies thereof—are to be preserved in an album by the society, and besides forming an incentive for good work, in time will form a most valuable collection of the best specimens of photography produced each year by members. The plan has been adopted as a substitute for the "Presentation Pictures" which have been abandoned. The exhibition and competition will no doubt attract great interest among members and their friends.

"*Illustrated Boston*" started on its winter travels October 12th, and will be in the possession of the Amateur Photo Societies of the following cities, remaining in each about two weeks to allow for examination and exhibition: Providence, R. I., from October 12th to the 26th; Lowell, Mass., from October 26th to November 9th; Hartford, Conn., from November 9th to the 23d; Newark, N. J., from November 23d to December 7th; Baltimore, Md., from December 7th to the 21st; New Orleans, La., from December 21st to January 8, 1890; Louisville, Ky., from January 8th to the 25th; Cincinnati, Ohio, from January 25th to February 11th; Pittsburgh, Pa., from February 11th to the 25th; Chicago, Ill. (Camera Club), from February 25th to March 11th; Grand Rapids, Mich., from March 11th to the 25th; Cleveland, Ohio, from March 25th to April 8th; Syracuse, N. Y., from April 8th to the 22d; Albany, N. Y., from April 22d to May 6th.

Revised Formulæ for Eikonogen:

I.—FOR SEPARATE SOLUTIONS.

A.

1. { 8 oz. sulphite of soda, ... } Dissolve.
   { 60 " distilled water, ... }

Add 1 oz. eikonogen.

B.

{ 3 oz. carbonate of soda (crystals), . . . } Dissolve.
{ 20 " distilled water, ... }

Mix 3 parts of A with one part of B.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts bromide pot., and 70 parts distilled water.

II.—FOR READY PREPARED SOLUTIONS.

{ 8 oz. sulphite of soda, ... }
{ 3 " carbonate of soda (crystals), . . . } Dissolve cold.
{ 80 " distilled water, ... }

Add 1 oz. eikonogen.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts bromide pot., and 70 parts distilled water.

III.—SOLUTION FOR PLATES TAKEN VERY QUICKLY.

{ 8 oz. sulphite of soda, ... }
{ 1 " carbonate of potash, ... } Dissolve cold.
{ 30 " distilled water, ... }

Add 1 oz. eikonogen.

While developing add 6 to 8 drops of a solution of 1 part hyposulphite, 6 parts bromide pot., and 70 parts distilled water.

For solutions I. and II. one-half to three-quarters of the exposure allowed for pyro and hydrochinon is sufficient. For longer exposures dilute with half the quantity of water, or add

sodium bromide. Do not take potash except for solution III., and avoid the use of ammonia. Do not put acid in any of the solutions, and do not use metallic sulphite. Instead of distilled water rain-water can be used, or well-water which has been clarified by soda (35 grains to 35 ounces of water). The sulphite of soda must be in an absolutely perfect condition.

Our thanks are due to Mr. Beyer, Secretary of the Hoboken Camera Club, for an invitation to the club reception, which will be given December 5th. We regret that we shall be unable to accept the invitation, and extend our best wishes for a pleasant evening.

Negatives of uneven density may be printed evenly by placing the frame slanting in a box, with the thin portion of the negative lowest.

Emulsion Making.—In the October *Amateur* Mr. F. A. Rowell gives a method of making a gelatine emulsion, which does away with the troublesome breaking up and washing, and robs emulsion making of much of its terrors. We can recommend the method from practical experience. The formula given by Mr. Rowell is as follows:

No. 1.—Nelson's No. 4 gelatine,	50 grains.
Distilled water,	3 ounces.
No. 2.—Distilled water,	9 ounces.
Potassic bromide,	150 grains.
No. 3.—Distilled water,	9 ounces.
Silver nitrate,	150 grains.
No. 1 solution,	2 drops.
No. 4.—Gelatine,	200 grains.
Distilled water,	6 ounces.

To which add half a grain of chrome alum dissolved in one dram of water.

No. 3 is added to No. 2 gradually with constant stirring, thus forming the sensitive bromide of silver. The precipitate is allowed to settle, and the water is poured off carefully. The bottle is again filled with water, the precipitate stirred, allowed to settle, and the water again poured off. This process is repeated two or three times when the bromide will be sufficiently washed. No. 1 solution is now added and the bottle well shaken. Place in a water bath and keep at 150 degrees for two hours; then add solution No. 4, filter, and proceed to coat the plates. As will be seen, the method can be applied to any formula, and it greatly simplifies emulsion making.

A camera club has been organized among the students of Amherst College, Amherst, Mass. President, R. B. Luddington; Secretary, H. N. Potter.

The Hartford and Springfield Camera Clubs have joined the Lantern Slide Interchange. The Hartford Club will prepare a series of slides of views in and around Hartford for its first annual contribution.

At the regular October meeting of the Mystic Camera Club five new members were added, and an appropriation was made for the purchase of a stereopticon. The monthly outing of the club was held at Boars' Hill on the 20th of October.

Alexander Black, President of the Photographic Section of the Brooklyn Institute, has prepared an interesting lecture on the detective camera, illustrating it with lantern slide pictures made by several prominent amateurs. He finds professional photographers do little or no detective work.

A History with a Moral.

A FEW FACTS OF IMPORTANCE TO THE PROFESSION.

Experience is a thorough teacher but a notoriously expensive one, and the photographic world is peculiarly unfortunate in being obliged to gain their progress from this tutor. With few exceptions every new process comes on to the market in anything but a perfectly developed state, is seized upon as a means of making money by a dozen and one irresponsible parasites, and represented to the photographers as thoroughly practical. The promised

results being enticing, his uncertainty as to the fault lying in his own manipulation or the process he is trying in vain to work, he generally manages to consume a great deal of time and money before giving it up. The parasite pockets the money on first orders, the photographer his losses, and it is left for reliable concerns with capital to prosecute the expensive line of experiments which can only lead to perfection and practicality. It therefore behooves photographers to inquire carefully into the responsibility and financial standing of the manufacturers of all lines of goods that pertain to photographic chemistry, that they may base a good judgment on what they are getting, and if imperfection exists that they may be confident their losses will be made good and that they have substantial reasons for belief that the concern in the end will perfect the process.

A good illustration of this is the history and introduction of what is called aristotypy. To the American Aristotype Company of Jamestown, N. Y., unquestionably belongs the credit of the development of this process which is of such great importance now. While the German photographic chemists insisted twenty years ago that silver could be suspended and divided more evenly in collodion than in any other known agent, and prophesied, therefore, that a ready sensitized collodion paper would be the paper of the future, no one had ventured to invest the large amount required to accomplish this much-looked-for result until this company organized to wipe out the obstacles that stood in its path, by a long line of exhaustive experiments.

Their first move was the placing on the market an outfit consisting of emulsion, flowing frames, and paper, with explicit directions for working, and the same were eagerly sought for by photographers, who grasped the possibility of producing the magnificent results of a collodion paper. Thousands of dollars were sold of these outfits in a few weeks after their introduction, and hundreds of photographers bought them. This method proved itself absolutely and thoroughly impractical. It was discovered when put to practice, first, that not one in a hundred had the steadiness of hand to flow their paper, even by the most improved frames, thus causing crape lines, unevenness in flow, and consequent clogging in shadows when printed; secondly, the operation was in no way an improvement on the drudgery of silvering and fuming; thirdly, when the waste and labor was computed the cost was so high as to be impractical, except for very high priced work. It might be well to remark in this connection that nothing short of absolute ignorance of chemistry could so mislead a photographer as to allow the idea to be imposed upon him for one moment that he can make his own emulsion and prepare his own paper, laying aside entirely the expense of same. The slightest variation in any of the constituent chemicals would throw him far off from his results and to discover in what chemical lies the fault, which he must do for a remedy, each and every ingredient must be analyzed, and he must know what adulteration or chemical change to look for.

Again, granting the absolute infallibility of chemicals, which is preposterous, a variation in the Baryta coating of his German paper, on which he must depend, would render no one emulsion reliable. The American Aristotype Company have to import this pulp from France, and enamel it in this country to insure perfect runs of paper. The American Aristotype Company upon becoming aware of these facts promptly advised its customers that they would make good every outfit, and then turned its attention to the manufacture of a ready prepared paper. Machines were set up for coating, of construction similar to those employed for coating gelatine, and were found totally incapable of coating collodion. Thousands of dollars were then expended in experiments on machinery before a result was reached and the goods ready for market.

This production, when ready, while much more satisfactory than the hand flowing outfits, the Company were not satisfied with. Its reliability was precarious on account of the varying age that it came into the hands of the photographer through stock houses, thus rendering no one toning formula reliable. In other words the paper had to be used comparatively fresh or a variety of toning formulas were required to tone it evenly at different ages.

Against the wishes of its largest customers this Company withdrew its goods from the market, resolved to shut down and continue its experiments until absolute perfection was reached. For over five months longer it invested capital, making a period of two years that it was at constant investment without revenue from their sales. Its emulsion was entirely

reconstructed, and its entire manufacturing plant also, to produce what it has now just begun putting upon the market, viz., a ready sensitized collodion paper that is reliable at all ages. The question of freshness is entirely eliminated as the paper is chemically aged before it leaves the factory, as old in fact as it will become in months, and contains preserving chemicals, that are reliably reached by the toning outfits which the Company manufactures in connection with the paper. These outfits are sold less than the ordinary albumen formula can be compounded for at the gallery. This great obstacle of age being removed, with a double security of manufacturing its own basic stock, there is very little room for doubt that this Company have eliminated their last refractory agent, and the reliability of their goods can be in all reason depended upon by the craft and trade.

The persistency and fearlessness with which they have invested their capital and the straightforward manner which has characterized their conduct toward the trade, should commend them to all who have an appreciation of the advancement of photography and the elements that produce it.

Owing to the fact that Aristotype has now become a meaningless term, as all sorts of gelatine papers are now put up under this name, they have adopted the word "Aristo" for a ready sensitized collodion paper. They own the name and it is trade marked with their eagle.

The Eikonogen Developer.

BY A. PEEBLES SMITH.

[Abstract of an address before the Society of Amateur Photographers of New York, October 8, 1889.]

About the first of the year Dr. Andresen, of Berlin, discovered a new reducing agent, namely, eikonogen. It is a grayish brown powder, as you will see in the sample bottle I will pass around. Many claims are made for it, that it is quicker than pyro, that it will bring out more detail than pyro,and eclipses iron, which in some respects is a hard developer to excel. It throws hydroquinone entirely out of the field. It is less expensive than pyro, first because its first cost is less, and second, because the same amount does more work than pyro. I have developed a great number of negatives with it during the past two or three months. In a journal of recent date I read the following: "In one solution it is as impossible to produce as fine results as with other one solution developers, for we have not the degree of precaution required for finest work. In two solutions a plate can be developed intelligently, and the results are only limited by the experience of the operator and his skill in developing. Later we shall have more definite reports to give concerning this new and promising developing agent."

After long experimenting, my experience is found to be contrary to that little paragraph. My experiments prove that one solution is *the* thing to-day. Simplicity is the great thing in photography. I shall give you a formula for a single solution. But I can also tell you how to use it in two solutions. I have used eikonogen relatively with hydroquinone and pyro and found that if you start a plate with eikonogen as your developer, let the detail come out, and then transfer from eikonogen to a pyro developer, the plate will develop with good density and give you a good printing negative when originally the plate was over-exposed. Used the same way with hydroquinone the result is a very flat, poor printing negative. The amount of alkali to be used with eikonogen has to be very small. If, as you naturally would in the use of pyro, put in more pyro to secure density, with eikonogen it makes no difference. We use so much, and the plate is at the mercy of the developer. The secret lies in giving the plate a correct exposure. It requires only a third as much time as pyro to get the same effect.

I have experimented with various bromides in connection with eikonogen and find that bromides obtained from the various metals are the best, such as bromide of zinc, tin, copper, etc. For a preliminary bath I recommend the following:

Bromide of copper,	6 gr.
Water,	6 oz.
A half saturated solution bichloride of mercury,	1 drop.

Soak the plate for one minute in the above, then wash and pour over the developer made up as follows:

First add and dissolve enough sulphite soda (crystals) to six ounces of distilled water until the actino-hydrometer (used in making silver baths) registers fifty degrees, then is added and dissolved enough phosphate of soda until the hydrometer rises to sixty degrees, then dissolve and add carbonate of soda (crystals) until the instrument rises to seventy degrees. Now dissolve separately four grains of bromide of zinc in half a dram of water and add to the above, finally add to the whole one dram of eikonogen and half a dram of alcohol. This forms the developer in one solution, and it will keep for six months. If the developer does not work fast enough it is only necessary to add a little more carbonate of soda. But I have tried it on nearly all the brands of plates that exist and find that it works admirably.

For Eastman films and paper I reduce the amount of carbonate of soda, making the hydrometer rise only to sixty-five degrees. I have been greatly pleased with the developer, and to test its merits have given some to several friends to try. The results they have obtained on other plates were quite remarkable and confirmed fully my experiments. I worked the formula out for a plate that does not contain a great amount of silver, and we are all aware that our American plates are sadly lacking in that quality. On collodion emulsion lantern-slide plates the developer having in it much less alkali, works admirably. I intend trying it on a bath plate. The developer can be used over and over again. Using it on Eastman paper I generally flow it over first with a solution of sulphate sodium and then apply the developer and get a print warm in tone and perfectly free from stain.

[At the close of his remarks Mr. Smith exhibited several excellent negatives, made under poor light and difficult circumstances, also several slides developed with his developer, which were quite interesting; some of the slides were thrown on the screen. He also made a flash light exposure on the audience with a new compound of his own manufacture, which he said would produce an effect one hundred and fifty feet distant.]

CORRESPONDENCE.

LETTER FROM PARIS.

Difficulties of Instantaneous Photographing in England.

[By our Special Correspondent.]

The amateur who goes to England with great expectations as to the number and beauty of the pictures he will take will be very much disappointed. He certainly will unless he has exceptionally fine weather and takes his pictures very early in the morning. It is next to impossible to obtain a good view in many of the cities, because of either the rain or the smoke. In Dublin I managed to obtain three or four fair street views at points where the sun was brightest and the wind had cleared the smoke.

At Glasgow, one Sunday afternoon, the atmosphere and sunlight looked clear enough, and so I took a couple of shots from my hotel window. On developing I found I had fair pictures, with a hazy look, just as I remember the views were before being taken. All the rest of the time I spent in Glasgow, not an hour was suitable for even a short "time" exposure. So I did not waste any plates. At Edinburgh the same difficulty with smoke and rain was presented, although there is generally very much less of rain and smoke than at Glasgow. I waited for the wind to blow, and managed to obtain a couple of pictures in Edinburgh, one of the Scott monument and another of the castle, a most difficult feat with a Detective lens. My views will not take prizes, but I shall prize them and will know how to appreciate the photographs of other "fiends" whom I met, and who related some of their almost similar experiences.

At Manchester (where the rain falls and the sun shines every alternate half hour

throughout the twenty-four), it was not possible to obtain a street view. The dense black smoke swept through the streets, and at times one end of a block would be scarcely discernible from the other end. I was in Manchester over Sunday, and there was almost as much smoke ascending from the hundreds of tall chimneys then as on a week day. I suppose the fires have to be kept up. After several hours in the streets of Manchester one's face and hands become very dirty, greasy, and black, needing a goodly lot of soap and water before the comfortable feeling returns.

At Birmingham it was brighter. It is higher ground. There is much more of sunlight and pleasant weather during the year than at Manchester.

In Liverpool, which is usually very full of smoke (when it does not rain) I bought some views, as my traps were "booked" (as the English say) to Chester. I could have done a good business in street and dock views, for my day here was a charming one, with the atmosphere as clear as crystal; something unusual for Liverpool. I visited a photo supply dealer and was frightened at the prices demanded. For a yellow cloth lantern, wooden bottom and tin top, four inches square and eight inches high, which folds flat when pushed, $1.25, and other apparatus in proportion. It may interest you to know that in Liverpool, Manchester, Birmingham, etc., I saw that photo dealers had "Beach's Developer" on sale. It was put up in very concentrated form of two small (3 ounce) bottles, and in reply to my questions I was told a great many amateurs used it and preferred it to hydroquinone.

In the old town of Chester, where the Roman walls of Cæsar are still to be seen, I obtained some good pictures. Not much smoke or business here, only watching out for travelers and their trade.

At Stratford-on-Avon I obtained some fine views of Shakespeare's house, the Theatre, etc. The sun shone brightly and the atmosphere was perfect. I think that while this quiet little town has been almost overdone photographically, still an amateur could find at least fifty more points from which to get new glimpses of the spires and town wherein the immortal Shakespeare was born.

Oxford was another quiet place, with a good atmosphere for photographing. An amateur could spend weeks here with his camera, and then go away disconsolate because he had not taken a shot at some old head sculptured above one of the windows of the "New College"—itself over five hundred years old. I think the amateur photographer who delights in pictures of buildings or architecture would be in his element in Oxford.

London, as a field for an amateur to photograph in, especially a stranger amateur, I do not recommend. I was able to fire off a good many shots, after running the gauntlet of the numerous fast-going vehicles, but I cannot say I am pleased with the pictures as a whole. Just as I was about to get a snap from one of the bridges, up puffed a little tug, with a vast cloud of black smoke, that took from fifteen minutes to half an hour to float away, or at least to settle down quietly. I don't care to take any more pictures in London, and if I was ever so well equipped with plenty of holders I should not care to waste the plates.

At the Camera Club, No. 21 Bedford Street, I was made welcome by Mr. Davison, the Honorable Secretary, and other gentlemen. It is the largest and only club of the kind in England—550 members. They have narrow quarters at present, but have a well arranged developing and dark-room—small, but full of every necessity. They are to have the largest portion of a new building now erecting, and when they remove they will add new features. I think the tendency of the amateurs of the London Camera Club is toward "high art" in their pictures, that is, "art and the beautiful" rather than taking a picture for preservation as a memory of the place they have visited. I saw several specimens of this character, and must say that some of the gentlemen of the London Camera Club do some of the finest amateur work I have ever seen, our own Mr. Dumont and others not excepted, and this was work that had not been touched after the negative was developed. We will have to get as fine lenses as they use and be more enthusiastic, if we want to hold our own.

When, on photograph matters intent, I went to the exposition the other day almost especially to see that part of the great show, I was more than five hours hunting for the display. When I found it at last, up on a balcony of the "Palais des Arts Liberaux"—in a class, of a class, of a sub-class; and not in a class, of the class, that the official map *classed* as a class "general." It was not classed as an art, or part of an art, but as a "Metiêr," or trade,

worked in connection with "tools" and "chemics." So that under "Photography," pure and simple, as we should define it, the wise Frenchmen put it down under, I believe, seven different sub-sub-sub-"*classes*," and include the optic class, etc. If I had been a French *savant*, and fully posted on the method adopted in classifying the articles displayed in the exposition, I might have found what I was searching for sooner. I asked the uniformed guides and was referred from one to the other, until, as I thought, the right one had been reached. He could not direct me further, unless I could name the very particular sub-sub-sub class-class or "art" of the many "arts" the Palais of the Arts Liberaux was erected to exhibit. To do this I found I should have to pay six francs for a book, which looked to me as if I should have to overhaul it (the book) for about a week before its contents, in my special inquiry, would reveal the information required by the official in uniform. In France officials know very little of the matter they are put in charge of. They seem to think it only their duty to keep people's hands from touching anything not on sale. Rather than pay $1.25 for an almost useless book, I resolved to visit *seriatim* everything exhibited in the Palace of Liberal Arts. By so doing I found out that the building of a sedan chair or a donkey cart was one of the "liberal arts"; that the making of a reindeer's harness and sledge was a "liberal art"; that the fashioning of a violin case was a "liberal art"; that the method of inflating balloons was a "liberal art"; that wood carving was a "liberal art"; that handwriting was a "liberal art," and that many other things were of the "liberal art" order, which my more practical countrymen would fail to recognize as "art" at all. For instance, a lot of Alaskan Indian totems—big logs, cut in fantastic shapes, painted red, white, and blue, and erected in front of some Indian huts, were probably the most "liberal" of all the arts exhibited in this "Palais des Arts Liberaux."

In reality, while I was so long getting at the photo display by classes, I might have reached it almost immediately if I had not first become mixed up by the official guides. They certainly knew nothing but classes, and as I did not know much about classes, the ignorance was mutual. Two negatives in this case did not make even one affirmative.

Of course photography is a liberal art, but liberal arts being classified from number I. to number XLVIII., and each of these numbers subdivided into sub-classes, I think it would puzzle a duller brain than the writer's to follow up the various leads indicated by this method of classifying an exhibition of the "liberal arts."

I have been thus particular because I wish to impress upon the minds of your readers the big thing that this show is, and the minuteness of its order of arrangement, which I think only the French *savants*, or learned men, can truly appreciate and admire.

Fortunately for me, I was saved much trouble by Professor Stebbing, who in our interview informed me that the particular "automatic photo machine," said to have been exhibited here, was not in the exhibition. He said something like it had been gotten out—or up—but the authorities had ruled it out, for probably the same reason that they stringently enforce the law to prohibit photographing in the public streets. He said he was eight months getting permission to do so, and then only obtained it by agreeing to put his camera up on a stand about ten feet high and submitting to the authorities the views he had taken. He cautioned me not to use my Detective in the streets, and said the photographers who photographed in the exposition all had to procure licenses (for $5), and then could only work a couple of hours in the morning of the day for which the license was issued.

In the photographic exhibition of the exposition Nadar & Co. were awarded the *grand prix*, and I think they certainly deserved it, for great life-like, full length portraits. I saw also some of the big negatives printed without (so they say) the touch of anything else "but the sunlight" and the developer's art (including, I suppose, the "art" which posed and lighted the subjects). The negatives were very fine. It would make some of our professionals feel very small; and yet some of the photographs shown by Americans are fully up in every technical point to their Parisian and German rivals. The English follow up the French very closely, but we in Paris cannot yet be allowed to know to whom the prizes, which were awarded last Sunday, have fallen, while to you at home the news is by this time stale, thanks to the *New York Herald* enterprise. I am told that the reason the list has not yet been published here is because it is due to the exhibitors that they should be first informed, before the general public. Well, the exhibitors, to the number of a

thousand or more, assembled last Sunday in a big building, and to them were awarded the thirty-three thousand prizes and "mentions." The President of the Republic went to the "solemn" distribution in royal state, and in royal style the exhibitors were informed to whom prizes had been awarded, before the "general public," who were not admitted. As yet the *news* papers in Paris are as silent as the grave on the subject. I was impatient to know how America had fared, and we went to the exposition to-day almost expressly to find out. I was made happy by seeing that several of the *grand prix*, as well as some gold and silver medals, had been awarded to some of my own countrymen. When the authorities get ready I suppose we shall know whether any American photoists or "machines photographic" have captured prizes.

In the exposition there are perhaps twenty-five or more exhibitors of cameras and instruments used in the "art." The instantaneous kind are numerous, but generally clumsy. I saw nothing to equal my box in simplicity, and did not see a holder that is as good as our own American double holders. In one exhibit there was a very ingenious cyclo-photo camera box, with which a circular enclosure could be photographed, and when the negative paper was developed, the resulting print conveyed a picture embracing all points of the photographed circle, whether the view was an interior of a building or an extended landscape. A very cute thing made by this instrument was the photo of a boy perched on a column. It took the little fellow all around himself—from the nose to the back of the head, and back to the nose again.

J. P. B.

Paris, France, October 1, 1889.

OUR BOSTON LETTER.

The first regular meeting of the Camera Club in this city was held on Monday, the 7th. The committee, which had been appointed to consider the matter of a revision of the Constitution and By-Laws, presented a new set which it is to be hoped the club will adopt as presented, for they cover every case, which may arise, needing a decision. The clause which provides that no pictures shall be taken in the club studio, with a view to the pecuniary profit of the taker, is a wise one, although it will be a difficult matter to know just where the line shall be drawn, for a case is easily conceivable where a picture is taken in the studio which is afterward copyrighted and numerous prints sold. But I suppose that the provision is meant to apply to cases of "malice aforethought," as a lawyer would say. Such a case I have in mind, and in fact the one which called attention to the abuse. A certain member, last spring, actually had his cards printed as a photographer with the address of the club thereon. Luckily for his membership standing, he was dissuaded from putting them out by a fellow-member. This was probably done through ignorance, but with the proposed amendment there will be no excuse for violation of the law.

The numerous complaints concerning the new Eastman films sold in this city, brought Mr. Millburn, their demonstrator, to Boston, in order to look up the matter. It was found out that there was ground for complaint for several emulsion numbers below thirty were imperfect and, as Mr. Millburn stated, they had evidently been sold in Boston. He gave a demonstration before the club, and in his hands some excellent work was turned out, especially a Kodak flash light group in which one of the members, sitting in the front row, has hands foreshortened to such an extent that one could almost imagine them the size of the proverbial "hand of Providence." In justice to the Eastman Company it must be said that their latest Kodak film, such as was demonstrated, is an entirely different and far superior affair to one of the first which caused others as well as myself many failures. The new film seems equal to glass in printing qualities.

The descriptions of Professor Willoughby's "Silent City of Alaska," which are now being commented on so extensively as a remarkable phenomenon, lead one to suppose that at the bottom of the plate would be a view of the glacier, while above, as in mirage, would be seen the outlines of the city. Having seen the glacier some years ago, this was the picture which I had formed in my mind. Yesterday I saw a print from this wonderful negative, and of all the commonplace specimens of double exposure, this is a little the

worst. One seems to be standing on a slight eminence above a large city, every building in which is fairly distinct, although a little out of focus. The city is not in the air, but just a plain matter-of-fact city lying at the feet of the observer, while the faint glacial outlines and masts of a ship may be traced among the buildings. Even supposing that a silent city exists in the interior or at the foot of Glacier Bay, it cannot be such a modern, every-day one as the picture represents.

The Boston Club will probably have some kind of an exhibition every Monday evening through the winter. The first of these entertainments occurs this evening, when the slides illustrative of the "Delles of Wisconsin," and made by the Chicago Club will be shown. Mr. Reed, the Treasurer, was to have given a talk on his trip through the Luray Caverns, but he is very sick, being threatened with typhoid fever. Mr. Walter G. Chase will therefore fill the vacancy by giving illustrations of the Shakers.

Brookline amateurs will organize a Camera Club this week. Messrs. C. N. Wrightington and Charles Duncklee are the movers in the matter. Brookline numbers some excellent amateurs, especially among the young ladies. It is to be hoped that some of the older votaries of the art will take an interest in the new club and thus insure success.

The Mystic Camera Club had an outing in the Middlesex Falls recently. The results have not yet transpired.

A good story is told me of one of those amateurs, or rather "Kodak amateurs" who belongs to that class knowing not the why or the wherefore of photography. It seems he took abroad recently with him one of the Waterbury detectives which have a counting dial to number their exposures. Instead of turning the film he turned this dial after every exposure. Result, several rolls of films without a single exposure and a development bill from the printer as long as the roll.

At last, Mr. Wilfred A. French, who has so long maintained his sphinx-like silence in matters pertaining to the art, although so competent to enlighten the confiding amateur, has consented to write for the next number of *Wilson's Mosaics* an article on "Realism in Photography." Dr. William Herbert Rollins will also contribute a paper on the new Jena glass which is considered one of the greatest discoveries in photography.

GREENOUGH.

OUR ENGLISH LETTER.

The winter season may be said to open with the Pall Mall Exhibition, and as this exhibition is all the talk just now, it will be well to study the tendencies of our art as shown by the exhibits. For the first time the judges were elected by a ballot of the Society and the judges were also the hanging committee, both steps in the right direction. But if the members of the Photographic Society of Great Britain really wish to elevate the art side of photography they must in many cases return different judges. The best artists were not elected and the judge was about as fit to pass an opinion on *pictures* as he is fit to lead a *cotillon* at a court ball. But such anomalies always exist in the infancy of all things. It is not so long ago that in this country parsons were statesmen, and barbers were surgeons, so there is hope that artists may one day be the judges of pictures. On entering the exhibition room the first impression is one of joyful surprise. Purple and black gloss have given way to black and white and brown, in short the general appearance of the exhibition is more like an exhibition of etchings or engravings than any photographic exhibition we have ever seen. That at any rate is satisfactory and it is especially satisfactory to me, for seven years ago I was one of the trio of men who exhibited platinotypes and, though I met with much opposition and scoffing, I persisted by writing and exhibiting to advocate the great superiority of this process over any other, and I have in that seven years lived to see Davison, Yale, Sutcliffe, Robinson, L. Sawyer, Byrne, one by one drop silver printing and take to the more artistic printing method. Mr. Keene, of Derby, too, was one of the earliest and most persistent platinotype printers, and his influence in this direction has done much good. The battle is completely won now, and platinotypes and photo-etchings will for the future hold the field and be adopted by all the best workers. But there is the great outside public to educate, that will be a slower and more difficult task, but the battle will be won in time.

Now, proceed we to discuss the more important exhibits, and this we shall do in an impartial spirit, as we have ever done, keeping simply one end in view—the true advancement of photography. The first exhibit that calls for mention is Mr. George Davison's Nos. 7-13. These are printed in platinotype of various colors—brown and black. We regret that Mr. Davison should have exhibited this series, and after the "Part o' Day," which I was glad to call your attention to in my last letter, these are bathotic indeed. Technically they are of the ordinary photographic type, and artistically they won't hold at all. In the majority too much landscape is included and in all the figures look posed and artificial and the sentiment is spurious. In his sunset scene there is not sufficient modeling and the tone is false. The picture is what the French call *moue* and won't hold at all. This gentleman's work is very uneven and no one who has seen the masterly "Part o' Day" can understand these photographs coming from the same hand. We hope sincerely such a promising worker as Mr. Davison will not think that he "has arrived" and be spoiled by the ignorant and vapid praise of interested and designing persons.

The Rev. J. C. Allen, in a series of Epping Forest pictures, shows sympathy with Nature, but a perfect lack of artistic knowledge.

Decidedly one of the best figure subjects in the exhibition is Mr. I. M. Brownrigg's "Patience Trumbert in her 90th year." The artistic focus is perfect, and though there is just the faintest show of artificiality, it is altogether capital and far more deserving of a medal than Tolley's, Green's, Schmidt's, and much other work.

The next series we come to is Mr. Gale's. He sends four platinotypes. As usual with Mr. Gale's productions the clouding is false and meretricious, the sentiment small, and the composition feeble. "Harvesting in Sussex" is decidedly commonplace, as is "Village News." There is no just sense of focus as in "Homewards," whilst the "Monk's Walk at Cheyne" shows how really feeble in sense of design Mr. Gale is. This gentleman's artistic powers have been much overrated; he would have made a splendid topographical photographer, surpassing Valentine, Payne, Jennings, and Wilson. Mr. West's yacht studies are good as usual, though false in clouding.

The next series we come to is Mr. Lydell Sawyer's. We heartily congratulate this gentleman on his series, and though he has written against naturalism and perpetrated some fearful travesties, like "Tam O'Shanter," and obviously lacks art training, still in his numerous exhibits as shown this year, he displays genuine artistic ability. His works are all naturalistic, and he has paid especial attention to just focusing, having, with artistic knowledge, subdued his middle distance and distance by throwing them out of focus. His work, like the work of all untrained persons, is very uneven. One lights on a masterpiece here and suddenly a really childish composition follows. This always fills one with doubt as to whether the photographer really knows which is the better, and certainly the judges this year did not know the best, for they medaled a stupidly sentimental picture when such masterpieces as "Waiting for the Boats" and "On Their Own Hooks" hang near by. Yet even in the two last pictures there are many and serious faults. The clouding is false, part have been sunned and so rendered false in tone and the figures tell too black. All this produces a striking effect in an exhibition and kills quieter and truer work. But it does not live. We have gone to this length over Mr. Sawyer's exhibits because we see the "makings" of a great artist in him, and years hence he will perhaps feel grateful for timely criticism, though he may not like it at present. We heartily congratulate him upon his medal—none was better deserved, but it should have been awarded to "On Their Own Hooks" or "Waiting for the Boats."

The next photograph we come to is Mr. H. P. Robinson's "Merry Fisher Maidens." This is an inane, flat, vapid piece of work, bigger and more worthless than ever. Its composition is childish and its sentiment puerile, and yet the sage Germans awarded this "picture?" a first class medal.

The enlargement from Mr. Sutcliffe's "Harvest Field" by the Autotype Company conclusively proves the illegitimacy of the process. All the values are knocked out of time and the textures stretched and unnatural.

The next set we come to are B. J. Wilkinson's, Jr. This is a poor lot and perfectly unworthy of the medal awarded to them. The only point of any merit is the focusing,

which is naturalistic, and we are glad to see another "sharp" photographer has had the sense to see the folly of old ways. The figure in "Shrimping" is mean in type and stiff in pose, the clouding false, and the sentiment poor. "Harvest Time" and in short all the rest are feeble and commonplace, and the only artistic quality they possess is the focusing, learned from the naturalistic school.

Mr. Horsly Hinton sends some promising work, but the topographical blends too much with the artistic. "A Study in Betchworth Park" is fine. "Ere Winter Yields Its Brown Defiance" is a fine poetical landscape, but the focus is not so perfect as it might be.

A huge cathedral (Cologne) by G. A. Schmitz, takes an undeserved medal, the award being a satire on the judges. Won't artists laugh!

Mr. F. M. Sutcliffe sends a fine collection of naturalistic pictures as usual. Here the artistic focusing is done with judgment and knowledge, the sentiment is true and the artistic qualities perfect. We are glad to see Mr. Sutcliffe has adopted platinotype printing. Mr. Frank Hopps sends a really marvelous study of a bunch of grapes. A Mr. E. A. Perkins sends a stupid lot of rustic scenes in plush and gold. Messrs. Green brothers take a medal for a series of topographical views of the English lake district. For this kind of work the medal is well bestowed. Mr. S. Bourne sends a lot of indifferent work, some of childish merit. Col. Nuerre, a new name, sends three striking photographs with false and meretricious clouding, but they show decided promise. Col. Nuerre has strong artistic instincts, but he wants culture. They are true in focus. J. P. Gibson sends a series of his well-known topographical views. The student can study the poorness of the old "sharp school" as compared with naturalistic methods by comparing these and H. Tolley's scenes with Davison's, Sutcliffe's, and Sawyer's works. Mr. H. B. Berkely, a well-known worker of the old school of landscape, has an interesting series. These are all good topographical studies of Venice, "Lobster Pots" being the most picturesque.

Mr. Davison sends a series of landscapes taken with a pinhole camera. Mr. Davison has earned the thanks of all students for experimenting in this direction, and we hope he will continue his researches and show us the full possibilities of the "pinhole." This is a field that requires thorough study. Judging from these examples, good effect can at times be obtained, but we feel that the planes cannot be sufficiently manipulated at will. Of these, No. 236 is the best picture. The clouds seem false in one or two. As a series these are artistically far superior to the series already criticised, though from the way they are entered in the catalogue they appear to be shown rather as pinhole experiments than pictures. Captain Abney's snow and frost scenes are very good and interesting, Nos. 250 and 255 being very artistic.

Mr. Stevens contributes, as usual, a series of first rate flower studies, but none artistic.

Mr. Ralph Robinson has adopted the naturalistic method of focusing, but he has neither the knowledge nor artistic ability to produce rural pictures, and we strongly advise him to confine himself to portraiture. He has a really fine set of "at home" portraits of academicians and associates, but as an artist friend remarked to us, "We must remember that when he took them, artists were present and no doubt gave them what art qualities they possess."

W. Winter has joined the naturalists in focus and sends a good untouched portrait. At outdoor work he fails, as in "Dinner Time."

Mr. Blackmore is a new name to us, but his work proves that he is a very promising young artist and we hope to see more of him in the future. "Eventide" and "The Silver Lining" are delightful little pictures full of the true sentiment and far more worthy of a medal than many of those who obtained them. Go onward and aim high, Mr. Blackmore, and be more careful of the focus—not too sharp.

Mr. Cembrano's interiors (the Alhambra) are splendid and deserved a medal. Mr. Abel Lewis' portrait of a lady is in many ways charming; the focus is well arranged. Mr. Chester Jarvis has adopted naturalistic methods in focusing, and his "Un Militaire en Retraite" is good in that respect, though his treatment of figures all show the hand of the amateur. Mr. Essenhigh Cooke sends a good set of interiors, focused with judgment. We are glad to see another convert to naturalism in Mr. Lyonel Clarke. His portraits are capital, most artistically treated even down to the framing. These three portraits thoroughly deserved a

medal and it speaks ill of the judgment of the hanging committee when we say they are skied and ignored (medally). We hope Mr. Lyonel Clarke will go on in this direction and receive his due reward another year. Mr. R. H. Lord sends a vapid composition *à la Robinson*.

Mr. Harry Tolley takes a medal with his "Carting Hay," a thoroughly bad photograph in every way (artistically considered). This gentleman's artistic capabilities have been greatly overrated and he has never yet exhibited a perfect picture. It is shameful that so many good works should have been passed over and this wretchedly commonplace "Carting Hay" awarded a prize, unless it is for good topographical photography, for he is no artist. Robert Faulkner sends a good portrait of Professor Blackie, printed in platinotype. "Two Dutch Scraps," by Mr. Walter Colby are noticeable for their fine sentiment and naturalistic qualities. It is hard to see why the Autotype Company have been awarded a medal for photo-mechanical work whilst Mr. Colby has been ignored; but to the initiated, Mr. Colby's work is vastly superior; but then there was no practical photo-etcher on the jury. *Voila tout!* Mr. Macfarlane's "Midnight Sun" should have been hung lower; it looks interesting. Finally, Mr. Alfred Steiglitz sends a charming little landscape, No. 596, that has all the quality of a fine etching.

The exhibition, as a whole, is markedly interesting as showing the great strides made in artistic photography during the last five or six years, and after a careful survey of all the pictures the one lesson that it teaches is the *complete triumph of naturalism*. Photographs that a few years ago would have been rejected, now take the places of honor, and the old school suffers terribly by being hung next to these modern works. Nearly all the best workers have discarded silver printing, sharp focusing, artificial compositions, made-up interiors, combination printing, brilliant views of nature to the exclusion of others, and still all through there is evidence of a want of training. An *artist* should not and never does send out anything but a picture—some better, some worse. But nearly without exception, specimens can be found in each exhibitor's series, which no artist would father. The great exposition in France has proved triumphantly the victory of naturalistic or impressionistic art in Europe and America and this exhibition proves its triumph in photography. We start, then, on our second fifty years of history with a healthy basis and sound first principles, and if they are rigidly adhered to by our best workers, the century of photography will indeed have something to boast of. This revolution in photography has been accomplished in the last six years, and no sane or unprejudiced person who really knows the subject will deny that it has led to a great and distinct advance. An epoch of a most lasting character has been marked, and though there still live a few survivals of "other days," like the ornithorhynchus, they are doomed to speedy extinction. England holds the first place in artistic photography to-day and the naturalistic school hold the first place in this country, as this exhibition conclusively proves, and has proved to all persons of sane understanding. There are many promising young men with sound principles and determination, and things look bright for the future. May they continue steadfast, produce less, and never send out any but good works.

P. H. EMERSON, B. A.

Mr. W. H. Burbank,—Dear Sir:

In a recent number of the AMERICAN AMATEUR PHOTOGRAPHER I was reported as having said that the average monthly sale, by Messrs. Benj. French & Co., of Voigtländer's Euryscope lenses was three thousand. This is evidently a typographical error, as I remember to have put the number at three hundred, which, however, includes the portrait euryscopes, two series, the wide-angle euryscopes, and the new single landscape lenses. Since the introduction, however, of the rapid wide-angle euryscopes, the new-group lenses, the sale of the Voigtländer lenses has considerably increased, but it is not probable that it will reach the monthly average of three thousand. With this correction, I remain

Yours very truly, WILFRED A. FRENCH.

THE BERLIN EXHIBITION.

Thinking that perhaps your readers would be interested in an account of the late Jubilee Exhibition in Berlin, I have got Mr. Alfred Steiglitz, who was a judge in one of the sections and the recipient of a silver medal and the special Steinheil prize, to write a few notes, which I give herewith. Mr. Steiglitz has left out any mention of his own beautiful work which is duly appreciated here and doubtless well known to your readers:

"This exhibition was promoted by the "Gesellschaft der Fremden der Photographie (the only German amateur photographic society existing), under the management of Professor H. W. Vogel. The exhibition, which has just been closed, was undoubtedly a great success and greatly appreciated by the public. It was the first exhibition of the kind ever held in Germany and was the first time that the German public could be introduced to the work of the amateurs, German and foreign, who play such an important *rôle* in the art and science of photography. In our opinion the exhibition was a long-felt necessity, and it is certain now that the German professional as well as amateur has learned a thing or two from his American and English brethren, as regards art photography. It is a well-known fact that the German is very conservative and slow in adopting anything new. That this fact was conclusively proven in the Art Department of this exhibition is obvious, as the German work was much inferior (to the English especially) to foreign work.

The exhibition was divided into the following four departments, open to all comers:

I.—Scientific.

II.—Photo-chemigraphical and photo-mechanical.

III.—Art (portraiture, landscape, subject).

IV.—Apparatus and chemicals.

Department III. interests the majority most, and it will therefore be best to run through the principal exhibits of that department first.

PROFESSIONALS.

Frank M. Sutcliffe, England, was represented by his well-known studies, including his prize picture, "Water Rats." His work is too well known to say anything new about it.

Jackson, Denver, carried off the highest honors with his immense landscape pictures of the Colorado region. Germans are not accustomed to work on such size and naturally gazed at it with wonder.

Sacré's (Belgium) snowscape studies, printed in carbon, were gems, nothing like it having ever been seen in this country. Artists studied them carefully and pronounced them perfect.

Byrne, England, had a fine collection of large portrait heads on exhibition. His work is good, not being defaced by bad retouching, as is unfortunately the case with most photographic portraits.

Löscher and Petsch, Berlin, exhibited some first-class portrait and genre work, the latter being especially good.

Fechner, Berlin, excelled in portraits of renowned German artists. Severe critics compared this work with that of the celebrated Salomon.

H. P. Robinson, England, exhibited his latest: "Merry Fisher Maidens." It is a pity that this picture was hung so poorly; it seemed to be good, but of no exceptional value. I have seen better work from this gentleman, if I am not mistaken.

Winter, Derby, was on hand with his well-known platinum print, "My Mammy," which was very popular, and two other pictures, which, though technically perfect, are of little value as works of art.

Gibson's (England) six landscapes were the best in the professional section; the one called "Landscape," a platinum print representing a winter scene, was undoubtedly the finest of the collection.

Keene's (England) platinum prints of architectural subjects and landscapes are well known and were appreciated.

Mr. and Mrs. Anckhorn's (Scotland) genre pictures were rather unnatural and theatrical. Their brilliant burnish was much admired by the burnishing machine manufacturers.

Bieber's (Hamburg) exhibit of portraits was bad, inasmuch as every single picture was ruined by retouching. This firm has received gold medals all over the world!!

Of Pletzner's (Carlsbad) portraits on platinum paper the same holds good, with the difference that this gentleman owns no gold medals as yet. Some of his portraits were hideously retouched.

Anselm Schmidt's (Cologne) immense pictures of the cathedral were first-class topographical work.

The instantaneous studies of Anschütz (Berlin) are world renowned; he had nothing new at the exhibition.

AMATEURS.

Countess Loredana da Porto Bonin, Italy, occupied a whole wall, having sent about thirty eighteen by twenty-four-inch pictures, landscape, portraits, and genre. This lady's artistic feeling is exceptionally fine, and therefore some of her work is beautiful, her genre pictures with landscape backgrounds being her best work; while her portraits are stiff and unnatural. The Countess is undoubtedly the first lady amateur of the day. But does she do all the work herself? Technically it is not of equal merit.

Carlos Rehas, Portugal, is another amateur of high standing, and one or two of his many exhibits were gems. This old amateur is also very versatile in his work.

The crack exhibit, though under this heading, was undoubtedly some of P. H. Emerson's (England) landscape work. Here is a man with individuality and great originality, and one who has had the pluck to introduce naturalistic principles into the art of photography notwithstanding tremendous opposition. His influence is bound to be felt sooner or later, and the sooner art photographers see into this, the better it will be for the general standard of art photography. Artists greatly admired Mr. Emerson's work, although some of the old so-called "smooth school" preferred to pass it over. *Photographers* didn't like it. Naturally!

F. P. Cembrano's (England) exhibit was greatly admired, too, his architectural pictures on platinum paper undoubtedly equaling if not surpassing those exhibited by Keene.

Paul Lange's (England) detective shots were gems, and the artists didn't tire admiring them. His work was done on platinum paper, which only enhanced the beauty of the specimens.

Ritter von Standenheim, Vienna, one of Austria's representative amateurs, sent thirty pictures of various sizes and quality, aristotypes, platinotypes, albumen prints, etc. His work, though above the average, falls below the English standard.

The largest and sharpest instantaneous pictures were exhibited by A. Lunden, Belgium; his work was technically perfect.

Dr. Obermeyer's (Brooklyn) half a dozen pictures were very promising specimens, especially one or two of the genre pictures being quite characteristic. His prints were artistotypes toned with platinum.

Hedinger's (Berlin) Aristo prints were fair specimens of the German amateur's work. It cannot be compared with the foreign. This gentleman shows artistic taste to some degree, but little technical knowledge.

Standigl, Berlin, exhibited "Lichtdrucke," platinotypes, and albumen prints, all technically good, but artistically of very inferior quality. This gentleman is one of the most versatile amateur photographers of the day, even going so far as to make his own dry plates.

Dr. Miethe, Potsdam, of "Gaedicke & Miethe Blitzpulver" fame, exhibited his "Norwegian Studies," very mediocre work on albumen paper.

Dr. Paul Güssfeldt, Berlin, missed an excellent chance to do some very fine work on his late trip with Emperor William II. The pictures exhibited were generally of very inferior quality artistically and technically. His glacier photos were good considering the difficulties under which they were taken. The man is greatly overrated.

Schulz-Hencke, Berlin, is another forlorn case of a non-artistic nature, although an amateur of eight years' standing, besides being first assistant to Professor Vogel.

Vogel, Jr., Berlin, exhibited some "neat" platinotypes and carbon prints. His technical work is above the average.

Many more exhibited, but it would be useless to mention them, the majority of the work being very poor, although now and then a good print would pop up, due to accident rather than to anything else.

The chief exhibits in Department I. were those of Professor Rowland, Baltimore; Professors Pickering, Harvard College; Gothard, Hungary; Spitaler, Vienna; Siemens and Halske, Berlin.

Department II. was very fine. Conspicuous amongst the exhibits were those of German Imperial Printing Establishment (magnificent photo-mechanical work of every description); Hanfstaengel, Goupil & Co., photogravures; Augerer & Göschl; Riffarth & Co.; Dr. Albert, Munich; Vienese Photographic Society, a collection of beautiful gravures; Meissenbach & Co., etc. Kurtz's, New York, exhibit was a disappointment, his reproduction of oil paintings not being liked.

Department IV. was not as complete as it should have been, but the splendid exhibits of Schering (chemicals), Steinheil Sons (lenses), Suter (lenses), deserve special mention."

Looking round at the results of the numerous exhibitions held in this jubilee year of photography it is quite evident that at present America and England lead the way in artistic photography, and there is good reason to believe that outside of the circle of American and English photographers there really exists no artistic school of photography at all and probably no artists whatever. In photo-mechanical work Germany, England, France, and Russia lead the way. Line work being most perfectly reproduced by Scamoni of Russia, tone-work and typogravure in Germany, photogravure in France (Crown process), and photo-etching (intaglio) in England. In lenses, Steinheil and Dallmeyer held the first positions, and whatever new development may arise must be looked for from them. For photographic chemicals, Schering holds his own. Such is the position at the end of the first fifty years of photography.

P. H. EMERSON, B.A.

ROCHESTER, Sept. 30, 1889.

On a recent trip to Europe I took with me, to save weight, six dozen transparent films of a well known make, and anticipated bringing home with me some very fine pictures, as my trip was made with that end in view. I visited some of the beautiful spots in England, and spent a week in Holland purposely to get some Dutch pictures and felt well repaid for doing so, as the costumes and people are all that any one who admires the picturesque could ask for, and on my ground glass I saw some studies that would have put in the shade some of the best compositions that I have ever made, and I returned home with medals and diplomas innumerable in view, and an idea that I was going to bring myself more photographic fame than I had ever had any idea of.

At my earliest opportunity I repaired to my dark-room and commenced to develop. Of course you will say, "Let me see the results." No you don't want to see them. The first one had (75) seventy-five pinholes in it, the rest had anywhere from ten to a thousand. I thought at first that it was caused by a dirty emulsion, but have since concluded that the celluloid repelled the emulsion, and that the pinholes were where the emulsion had failed to adhere to the support. By rubbing the hands over the plate before development one could feel the rough spots that cracked off as soon as the developer commenced to work.

I never developed any plates so carefully before, as I was particularly anxious to save every one, and I never had any glass plates act in that way before during the six years that I have amused myself with photography, and I consider it an outrage that any plate maker should turn out a plate that they are not absolutely positive is in every way perfect. Had I taken six plates of the make that I always use I should have brought back six pictures that I should have been proud of; as it is I have made prints of some five or six which no one shall ever see save myself, and when I look at them I cannot but say, "Of all sad words of tongue or pen, the saddest are these: It might have been," and all because I was foolish enough to pay fifty per cent. extra for flexible films. I wrote to the makers and told of my success, and, knowing they had swindled me, they have not replied up to date, though they have had two months to do so.

My advice to amateurs is to use celluloid films if they want spotted plates, or wait until they are better than any I have yet seen.

Yours very truly,

JOHN E. DUMONT.

SOCIETY NEWS.

[Under this head we propose to publish all society matters of scientific or technical value, which are of interest to amateurs generally. Our space will not allow the insertion of mere routine matters. Reports of Field-Days, Exhibitions, etc., will be gladly received and inserted, if received previous to the 20th of each month. Secretaries will confer a favor by forwarding early reports of meetings.]

THE PHOTOGRAPHIC SECTION OF THE AMERICAN INSTITUTE, NEW YORK.

The first fall meeting occurred on Tuesday evening, October 1st. Randall Spaulding gave an illustrated lecture on a trip through Great Britain. The views were made by himself; A. D. Fisk operated the lantern. A very enjoyable evening was spent.

An informal meeting occurred on Wednesday evening, October 16th, which was well attended. Considerable discussion on different photographic topics took place. J. B. Gardiner read an interesting paper on "The Objects and Uses of the Photographic Section," giving a brief history of its work.

NEW YORK CAMERA CLUB.

The regular fall meeting occurred on Wednesday, October 9th, at which there was good attendance. Several members had returned from their summer vacations, having secured many fine negatives both on films and glass. Discussions on the new developers and films took place.

THE AMERICAN LANTERN SLIDE INTERCHANGE.

The time for the sending in of this year's sets of new slides by the contributing societies has arrived and the Executive Committee is now at work in sifting out the best pictures. The circuit will commence about the middle of November. The additional organizations that have joined are: "The Syracuse Camera Club," "The Amateur Photographic Society of Baltimore," and "The Newark Camera Club." It is expected the work submitted this year will be better and more varied than any heretofore sent in. Additional suggestions have been published by the committee for the guidance of the associations, which will appear in a later issue.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

Exhibition of the London Camera Club Slides, September 27th. Regular Monthly Meeting, October 8th. History of the Ferreotype, by F. C. Griswold. Eikonogen Developer, A. Peebles Smith. Exhibition of the Tachyscope.

The first fall exhibition of lantern slides was given at the society's rooms on Friday evening, September 27th, comprising nearly one hundred slides, contributed by members of the London Camera Club. We regret that it is not possible to give a detailed description of the slides which delighted a large and appreciative audience. The fact that they were made by such well known English amateurs as Messrs. H. Holden, Seymour Conway, H. M. Elder, E. Ferreo, Surgeon-General J. L. Rankin, U. A. Green, A. Cornell Beasely, Francis Howlett, Charles Hussey, Major J. F. Mott, J. Gale, A. R. Dresser, A. Stroth, S. B. Webber, and Mr. Leventhorp, is sufficient proof of their artistic and technical excellence. The general verdict was that the collection was superior to that of last year. At the regular monthly meeting held on Tuesday evening, October 8th, Mr. E. P. Griswold made some interesting remarks on the Ferreotype and was tendered a vote of thanks. Mr. Tisdell exhibited a new stereoscopic detective camera with the shutter in front of both lenses, released by a bulb. Three or four holders could be placed in the rear of the camera in a wire basket which is removable for focusing, which is done from the outside by means of a key. The box has a swing back and the front is so arranged that the two lenses can be

removed and a single lens substituted. Mr. Tisdell also exhibited a light tubular tripod which can be used as a cane, and a new style of plate holder of the feather weight variety. Mr. Duffield exhibited a new detective camera lens made by Dallmeyer, which was said to be very rapid. Mr. Duffield also read a description of Herr Anschuetz' "Tachyscope," which was fully described in our August number. A large number of Herr Anschuetz's beautiful animal pictures were passed around for inspection and excited general admiration. Mr. A. Peebles Smith followed with an informal address on "Eikonogen as a Developer" (see page 193). Vice-President Williams, who has just returned from a trip abroad, exhibited a number of photographs showing the effects of the recent cartridge explosion in Antwerp. Mr. Beach showed a set of twenty-four Eastman Transparent Film negatives, time exposures developed with "eiko," as examples of work on the new films. The average was very good, one or two having spots and one a streak, transversely, across the center, due, it was explained, to the joint of the base on which the cellulose film is flowed. This may be reduced to a minimum by scraping the back of the film with a sharp penknife. Mr. Beach also exhibited instantaneously exposed film negatives, developed with "eiko," which had good density and were full of detail. These were developed by the following formulas:

No. 1.—Distilled water,	1 ounce.
Sulphite of soda,	32 grains.
Eikonogen,	16 grains.
No. 2.—Water,	1 ounce.
Carbonate of potash (c. p.),	160 grains.

To four ounces of No. 1 add one ounce of water and one dram of No. 2. Continue to add No. 2, half a dram at a time, until the details appear in the shadows. For time exposures it is advisable to add ten minims of a ten grain to the ounce solution of bromide of potassium. Density is easily obtained by leaving the plate in the developer long enough to give the density desired. Even though the plate may seem to fog over, the shadows will not be clogged. Mr. Beach claimed that "eiko" stained neither the plate or the fingers, and stated that he had developed ten 8x10 bromide prints with six ounces of developer, with no falling off in quality. The high lights of "eiko" developed lantern slides were said to be much cleaner and whiter than those developed with hydro or pyro.

At the close of the scientific business the society went into executive session to consider the following important matters: To fill the vacancy caused by the resignation of President Canfield; the adoption of certain amendments to the By-Laws, and the advisability of continuing the joint exhibition agreement. Nothing definite was decided upon concerning either of the three matters, and the meeting adjourned until Tuesday, October 22d.

An adjourned business meeting of the society was held on Tuesday evening, October 22d. Vice-President David Williams occupied the chair. The purported letter of resignation of President Canfield was declared by the society not to be a formal resignation, and that therefore there was no vacancy. It is the right of the society to fill all vacancies in the elective offices. This action was taken after a clear statement of the case in writing, by Mr. Canfield, had been read by Mr. Beach. The resignations of H. T. Duffield as Secretary, and of C. S. McKune and Wm. M. Murray as Directors of the society were read and accepted. The chair was authorized to appoint a special nominating committee to nominate candidates to fill the vacancies, which was afterwards done, consisting of John T. Granger, George M. Newcomer, and H. M. Grisdale, they to report at the next meeting. Certain amendments to the By-Laws were adopted. It was unanimously voted to hold a public joint photographic exhibition next spring in this city, also that it was the sense of the meeting that the official proceedings should be published by the society, independent of any other journal, and the President was authorized to appoint a special committee to examine into the matter, and report. The meeting then adjourned. On Friday evening, October 25th, an exhibition of lantern slides, mostly the work of members, was given. The society is be congratulated on being awarded a bronze medal at the Paris Exposition.

A special informal exhibition of prints is to be held at the rooms from November 7th to December 1st. H. T. Duffield has the matter in charge. Alfred L. Simpson has gone to Paris on a brief trip, expecting to secure detective views of the Exposition.

Miss Catherine Weed Barnes has perfected some improvements in her very complete portrait skylight at her home in Albany, which we hope to illustrate in an early number. With the new Voigtländer wide-angle lens she has been able to secure some very fine portraits in a wonderfully short time. Interiors, portraits, groups, and historical subjects are her favorites for photographing. She is also quite proficient in the making of lantern slides.

Dr. E. C. Bolles has been successful this summer in securing excellent photographs of wild plants, flowers, rock-moss and lichens. He generally makes lantern slides from all of his negatives and as a developer for them thus far finds eikonogen to be the best.

Mr. Warren and Mr. C. S. McKune have each succeeded in securing some excellent negatives of so-called "Sleepers," men who sleep off their drunkenness along the city piers and gutters. Mr. McKune's negatives of the great fire of the New York Central Railroad elevator are becoming famous, and were made under difficulties few would care to undertake. The smoke effects in them are something remarkable.

Mr. James H. Stebbins, Jr., with a very small camera has obtained some good street scenes in New York, and also along the Broux river. He finds for slide-making there is nothing like eikonogen.

Vice-President David Williams recently returned from a six-months' absence abroad and had a varied experience with films. Generally opaque spots developed and the films were not as rapid as he thought they should be.

PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

At the regular monthly meeting held Wednesday evening, October 2d, the committee on lantern slides reported that at the September conversational meeting slides were shown by Messrs. Bradway, Pim, Rolfe, Ennis, Rau, Walker, and Rosengarten. The society expressed its approval of the continuation of the joint exhibition agreement with the Boston and New York societies, and Messrs. John G. Bullock, Robert S. Redfield, and Samuel L. Fox were appointed to represent the society in the joint exhibition council, and they were authorized to take such action as may be necessary for the adoption of a suitable medal in coöperation with the other societies. Dr. Charles L. Mitchell read a paper on "Eikonogen," in which he expressed the opinion that the new reagent will prove "the most formidable rival to pyro that has yet appeared." After a brief discussion on other topics the meeting adjourned.

NEW ORLEANS CAMERA CLUB.

The regular monthly meeting was held on Wednesday evening, October 2d. An excursion over the Mississippi Valley Railroad was planned for October 27th, and Messrs. Wood, Mitchell, and Carriere were appointed a committee of arrangements. It was resolved that the club give an exhibition for its own benefit during November. A fine of five dollars was imposed upon any member who shall remove from the club-rooms any of the property of the club, except such as may be set aside for the use of the members. A vote of thanks was passed to Mr. Horace Carpenter for the silver door-plate donated to the club. Mr. C. W. Wood was elected to membership. After the adjournment a visit of inspection was made to the dark-room and studio now being fitted up. Many novel features will be introduced and the club will soon have one of the finest studios in the country. The dark-room is painted black and lighted with electric lights encased in colored globes. The arrangements for ventilation and water supply are each perfect in their way. The new rooms are at No. 3 Carondelet Street.

DAGUERRE CAMERA CLUB OF CHICAGO.

This club was organized by a number of amateur photographers who are in the habit of meeting at a bookstore on State Street, which is the daily gathering place of a number of young men interested in photography and amateur sports. Their club rooms are at 208 State Street, where they have a large operating room, with fine sky and side lights, besides three large dark-rooms and an enlarging room. They have in their operating room a Cooper's lantern, 11x14 portrait camera, and a large Ideal dissolving lantern. The operating

room is fitted up with screens and lockers and everything that would make a club-room valuable to an amateur photographer. This club has been organized but about two months, but in that time has done a great deal of work towards making a pleasant home for those interested in photography.

On the evening of October 11th, Mr. Stacy, of the Eastman Film Company, delivered a pleasing and instructive lecture before the club, on the subject of films and their use and abuse. This talk was listened to by the members and their friends with a great deal of pleasure, and many pointers were received, the result of which will show in the coming work of the club. On Saturday, October 12th, the club and their friends took a trip to Riverside for the purpose of bringing back negatives of that picturesque town. They first all sighted their cameras on the same piece of scenery, chosen by the President, and made one negative each, for the purpose of contesting for a prize offered by the club for the best negative. Then each member picked out his own subjects and snapped his shutter to please himself. About sixty negatives were brought back, and of this number fifty-two proved well worthy of the trip. The only incident that marred the pleasure of the trip was the fact that the Secretary forgot to use his new shutter, though one of the members suggested that when he fell in the ditch, if he had only broken a limb, it might have come into good use.

On Wednesday evening, October 16th, occurred the regular bi-monthly meeting of the society. The prize negatives, and a print of each one made at Riverside, were placed in the hands of Messrs. Pennington and Hamilton for judgment. They awarded the prize to Mr. Marshall. At this meeting the club concluded to take their next trip to Morgan Park, on the Chicago, Rock Island and Pacific Railway, going Wednesday afternoon, October 23d, leaving the Rock Island depot at 12.01 P.M. The prize for the best negative made on this trip will be a year's subscription to any of the photographic journals that the winner may choose. A cordial invitation is extended to all amateurs to go with the club on this occasion. Transportation will be at the expense of the club, and all are cordially invited to compete for the prize.

The club is very anxious to add new members, and as the initiation fee is but $2.00, and the annual dues but $1.50, the advantages offered to amateurs this coming winter will be worth fully twenty times that amount. It is proposed on November 6th to devote the evening to a series of lantern slides to be exhibited by Mr. Pennington. Twenty-five slides will be taken from the negatives made by the members of the club. There is no such opportunity offered to amateur photographers elsewhere. The free use of enlarging and portrait instruments, and three good dark-rooms, chemicals supplied at the expense of the club, and evening entertainments every month throughout the winter. Lectures are provided for, on subjects of interest to photographers. These will be given by persons eminent for their knowledge on the subjects treated. The club trusts that this invitation will be accepted, and that next Wednesday afternoon will see a large number of amateurs and their cameras at the Rock Island depot to go with the club to Morgan Park. Any information will be given on application to the secretary, and he will also be glad to have visiting amateurs call upon him, and will cordially extend to them the use of the dark-rooms for changing plates or developing negatives.

WELLS B. SIZER, *Secretary, 189 State St.*

PITTSBURG AMATEUR PHOTOGRAPHER'S SOCIETY.

At the regular monthly meeting, held Monday evening, October 14th, five new members were elected, and several communications were received and acted upon. A movement is on foot to unite the various scientific societies of the city in a confederation, and to secure permanent quarters with rooms for each society.

MARLBORO' CAMERA CLUB.

The club held its regular monthly field-day, October 20th, the objective points being "The Wayside Inn," of Longfellow's poem and the picturesque Sudbury marshes and meadows. The day proved pleasant and many picturesque bits were taken, which the members intend to work up into lantern slides.

SCHUYLKILL CAMERA CLUB.

Two interesting and instructive meetings have been held during October. At the first meeting a number of photographs of foreign subjects and views, including the Eiffel Tower, and the cantilever bridge over "the Frith of Forth," were shown by Mr. Wm. L. Shaefer, who accompanied the American engineers on their tour abroad. The second meeting was held at the residence of the Vice-President, E. F. C. Davis. Over one hundred slides were exhibited, many of them being the first efforts of the members. The Rev. Mr. Loder exhibited a slide of considerable clearness and detail, which had been developed by daylight with nuktigonia. Slides were exhibited which had been developed with the oxalate, pyro, and eikonogen developers, and the general opinion of the members was that the oxalate-developed slides had the best of the argument. The club now numbers thirty members, and efforts will be made to secure suitable rooms. For the present the meetings are held at the residences of the members.

BALTIMORE AMATEUR PHOTOGRAPHIC SOCIETY.

The regular monthly meeting was held on Friday, October 18th. The usual routine business was transacted, and several communications were read by the Secretary. Mr. John Trimble resigned the treasuryship on account of business duties, and Mr. R. McKim was elected to fill the vacancy. The House Committee reported by reading a circular relating to lantern-slide work. The circular sets forth that in order to increase the interest in slide making, and to aid those who wish to gain proficiency in it, competent instructions will be given on the various methods of slide-making every Friday evening, except the regular meeting night. During the coming season, in addition to the lantern exhibitions, a series of lectures on photographic and cognate subjects have been arranged for by Messrs. Murray, Cummins, Williar, and Norris of the house committee. The club having joined the Lantern Slide Interchange, Mr. A. S. Murray was elected a director. Mr. Milburn, of the Eastman Company, demonstrated the working of the new film, securing a fairly successful flash-light negative of the members. The evening closed with the exhibition of a few slides, including the club's contribution to the "Interchange."

CLEVELAND CAMERA CLUB.

At the annual meeting held September 24th, the following officers were elected: President, Montague Rogers; Vice-President, Frank J. Dorn; Recording Secretary, Dr. Robert Dayton; Corresponding Secretary, Alfred C. Ogier; Directors, Frank C. Ogier and Joseph Di Nunzio.

CHICAGO CAMERA CLUB.

A special meeting of the club was held Tuesday evening, September 24th, to listen to an address on the construction and use of photographic lenses, by Mr. W. Drescher of the Bausch & Lomb Optical Company. Mr. Drescher exhibited samples of the new Clark lens and explained its method of construction, the explanation being substantially the same with that which was given in the August number of THE AMERICAN AMATEUR PHOTOGRAPHER, and was listened to with great pleasure by the large gathering present. On Tuesday evening, October 1st, a second special meeting was held, to give the members an opportunity to meet Mr. John Carbutt, the veteran dry-plate manufacturer. The large rooms of the club were crowded, and Mr. Carbutt, after being introduced, spoke entertainingly of dry plates, orthochromatic plated, and films, their history and manufacture. He also showed several negatives and prints illustrative of his remarks, including the first negative made by him. Dr. Nichols then spoke briefly of his experiments with camphor in the developer, and stated that even in large quantities it did no harm. Mr. Fred K. Morrill, the Secretary, followed with an account of his experiments with "nuktigonia," which he stated to be an old idea revived. Great precautions must be used in employing it, and it greatly increases the cost of development. Mr. Morrill's conclusion was that the dark-room lantern was still the best device.

The regular monthly meeting of the club was held Thursday evening, October 10th. The feature of the evening was the presence of Prof. S. W. Burnham, an honorary member of the club, and Prof. J. M. Schaeberle, both of the Lick Observatory, who were on their way to New York to join the Solar Eclipse Expedition which has recently sailed for Cayenne, in French Guiana. Both gentlemen spoke of the aims and hopes of the expedition and the precautions which had been taken to make the photographic work a success. Mr. C. D. Irwin exhibited a print of Prof. Willoughby's notorious picture, "The Silent City," said to be the photographic reproduction of a mirage seen in Alaska some months ago. Mr. Irwin stated that the picture was undoubtedly a "fake." Dr. Garrison read Capt. Abney's paper on "The Scientific Achievements of Photography," which was recently reprinted in the *Scientific American*, and Mr. F. K. Dunne, a member of the club, exhibited a very complete detective camera and walking-stick tripod of his own invention. Specimens of the new developing agents, pyrocatechin and para-phenylendiamin, specially imported for the club, were distributed among chemists and experimenters of the club for experiment and report at the next meeting. The club medal for the best picture made at the Riverside outing was awarded to Miss Zilda E. Mackie, with honorable mention to Messrs. Jas. H. Smith, W. H. Sheerey, Gayton A. Douglass, and Mrs. N. Gray Bartlett. The uniform excellence of the exhibit was such that the judges had great difficulty in making the awards.

F. K. MORRILL, *Secretary*.

OAKLAND (CAL.) CAMERA CLUB.

A club was organized in Oakland, California, on Tuesday evening, October 1st. The club starts with forty members, of whom seven are ladies. Permanent quarters will be secured as soon as possible, and the regular meetings will be held on the first Tuesday of each month. The following board of officers was elected: President, H. L. Adams; Vice-President, T. W. Sigourney; Secretary, J. Leo Park; Corresponding Secretary, Miss G. Carlton; Treasurer, F. B. Rodolph; Directors, H. L. Adams, T. W. Sigourney, A. J. Gray, L. J. Hassler, and Chester Deering.

HOBOKEN CAMERA CLUB.

The following is the list of the recently elected officers: President, Geo. E. Mou; Vice-President, A. J. Thomas; Secretary, Richard Beyer; Treasurer, Chas. H. Beckers; Custodian, Geo. H. Steljes; Instruction Committee, Wm. Allen, Chas. Beckers, Wm. Sachs; Literary Committee, A. J. Thomas, Richard Beyer, A. C. Ruprecht, Geo. H. Steljes, Chas. Beckers. The annual fall outing was taken October 5th and 6th at Coneshaugh, Pa., and proved a great success, twenty-one members participating, many of whom secured fine views which are now on exhibition at the club rooms, No. 140 Washington Street. The proprietors of the Coneshaugh House contributed much to the success of the outing by providing conveyances, guides, a dark-room, and a good dinner. The club intends to give a reception to its friends on December 5th at Odd Fellows' Hall, which will be decorated with the work of the members. At the reception diplomas will be awarded to the winners of the prize competition. Stereoscopes are becoming fashionable with the members of the Club, many of whom have had matched lenses fitted to their cameras.

RICHARD BEYER, *Secretary*.

CHICAGO LANTERN-SLIDE CLUB.

The opening meeting of the fall and winter season was held in the new rooms, north-west corner State and Washington Streets, on Tuesday, September 24th, and it was a pleasant reunion of the slide-makers after the summer vacation. The President, Col. Stevenson, called the meeting to order at 8.30, and after the minutes of the previous meeting were dispensed with, the special item noted in the call was taken up—payment of the lantern bill, $165. This, being an item of personal interest to every member, was settled by a unanimous vote to make a special assessment of $3.00 apiece, and Dr. Garrison remarked that it was a matter of pride that this was the first special assessment that had been made since our organization in 1886. He suggested a recess of five minutes, in which the Treasurer, Mr.

Wagner, could collect from those members present, and afterwards the Secretary could notify each absent member of the resolution. The Secretary remarked that now the club was in excellent shape for the interesting season of interchange slides, with money in the treasury, and enthusiastic members joining occasionally.

The lantern was then lit, and a large number of beautiful pictures projected. The interchange box, which had returned from its trip throughout the states, and also a choice selection made by Mrs. N. Gray Bartlette for the present season's interchange furnished the evening's entertainment. Mr. H. I. Clark showed many interesting microscopic subjects, pleasing those interested in that branch of science. Altogether, the evening proved highly satisfactory, and the officers feel gratified at the interest manifested. The rooms are large and commodious, comprising an audience-room seating about one hundred and fifty, and an ante-room which, if occasion presents itself, can be utilized for demonstrations.

Our interchange box this season embraces a larger variety of subjects than any previous box, illustrating Alaska, Yosemite, Yellowstone, Dells of Wisconsin, and a few from the extreme southern states.

W. A. MORSE, *Secretary.*

LYNN CAMERA CLUB.

A special meeting of the club was held on Friday evening, October 4th, with a good attendance. The plans of the new club house were accepted, and it was decided to use the incandescent system in lighting. Applications for active membership were received from Guy C. Hovey, 48 High Rock Avenue; E. P. Michaels, 30 Brownville Avenue; Otis K. Stuart, Boscobel; Stephen F. Breed, 9 Portland Street, and an application for transfer from associate to active membership was received from W. A. Porter, of Beverly.

At a meeting of the club, held October 22d, it was voted to establish a new class of membership, "social members," persons who, while not actively engaged in photography, are willing to contribute to the finances of the club. The office of corresponding secretary was established, and W. A. Porter was elected to hold the office until the annual election in January. A committee was appointed to make arrangements for an entertainment to provide funds for the new quarters now nearing completion. Five new members were elected. So far as known the club is the second in the country to have a club-house, and the members are very enthusiastic over the prospects of the club.

SPRINGFIELD CAMERA CLUB.

The third annual meeting was held October 16, 1889. The following board of officers was elected: President, N. P. A. Carter; Secretary, J. C. Kemater; Treasurer, John Leshure; Librarian, H. N. Bowman; Executive Committee, the above and W. P. Draper; Room Committee, N. P. Carter, M. D. Fletcher, and E. A. Beals. The following were appointed a committee to arrange for an exhibition, to be held during the winter: John Leshure, chairman; Robert W. Adams, A. M. Ross, F. A. Nickerson, and W. P. Draper. The address of the retiring President, W. P. Draper, showed the affairs of the club to be in a flourishing condition.

QUERIES AND ANSWERS.

1.—What special conditions of lighting, development, etc., are best suited to snow scenes?

A STRUGGLING AMATEUR.

Will some of our readers kindly contribute an article on this subject for the next issue?

2.—Are slow or quick plates the best to use for time exposures on landscapes?

ANXIOUS INQUIRER.

Not an easy question to answer. My own preference is for slow plates on account of the greater latitude of exposure allowed, and the more brilliant negatives which they give.

W. H. B.

3.—Which of the platinotype processes is the best for a beginner to use? TYRO.
The cold-bath process, unquestionably. W. H. B.

4.—Can you give me a good formula for a toning bath? C. H. D.
See the article, "How A Professional Prints and Tones," in this issue.

5.—Do you regard the eikonogen developer as superior to pyro? H. B. W.
Most unquestionably, so far as our present experience extends. W. H. B.

6.—Will you kindly give a formula for a good collodion varnish for transparencies? B. W. G.
Alcohol, 4 ounces; pyroxyline, 30 to 40 grains; ether, 4 ounces. W. H. B.

7.—Have prints been made with oxalo-molybdic acid? EXPERIMENTER.
Yes. I have recently made a few, but the results were not perfectly satisfactory. W. H. B.

8.—C. Eugene Robinson asks for a good eliminator of hypo from gelatine films. I have always found that a sherry colored solution of bromine will act satisfactorily. The negative should be washed thoroughly before and after the application of the bromine solution. W. H. B.

BOOKS AND EXCHANGES.

We have seen nothing better on the optical lantern than Mr. T. C. Hepworth's "Book of the Lantern," published by E. L. Wilson, 853 Broadway, New York, at $2.00. Mr. Hepworth, who is now joint editor of the British *Amateur Photographer*, has had a long experience with the lantern, which has enabled him to make a book which is complete and reliable. We have read it carefully and we regard it as almost indispensable to every lantern worker. We are glad to see that Mr. Hepworth recommends the ammonia-nitrate process for dry plates for lantern slides, as we have found no other method so good as this in giving that brilliancy in the high lights, which is a marked feature in a good slide. We heartily commend the book.

M. Fabre's "Encyclopedique de Photographie" grows more and more interesting and valuable with each installment. Parts III. and IV., now before us, are devoted to an exhaustive treatment of shutters and cameras, with a valuable chapter on the testing of cameras. Complete in 20 parts, 2 fr., 50 c. each. Paris; Gauthier-Villars et Fils.

The *Photographische Rundschau* for October contains some striking process reproductions of detective camera work, and is in many ways a model issue.

Outing for October contains the first installment of the sporting novel, "The Flycatcher," by Capt. Hawley Smart, which opens well, and a varied contents of interesting matter. In "The Outing Club" Mr. W. I. Lincoln Adams, of the *Photographic Times*, advocates the use of orthochromatic process for photographing autumn landscapes and other colored subjects, and gives full directions for making orthochromatic plates by a simple and inexpensive method.

Our exchanges of the photographic persuasion come to us loaded down with much useful matter. The *Photographic Times*, *Wilson's Photographic Magazine*, *St. Louis-Canadian Photographer*, *American Journal of Photography*, and our foreign exchanges keep us posted on matters photographic throughout the world, and we regret that we have not the space to make liberal extracts from the store of good things which they bring to us.

From MM. Gauthier-Villars et Fils, Paris, we have received three of their latest publications, the "Traitè Pratique du Développement" of Dr. Albert Londe; "Le Développement de l'Image Latente," of M. A. de la Baume Pluvinel, and "Le Cylindograph," of M. P. Moessard. The purpose of the two former is explained by the titles. They both deal with the problem of development in a masterly manner. "Le Cylindograph" contains the description and applications of a novel camera of that name invented by the author. It is

the same camera mentioned in our Paris letter, and it seems to be a very useful instrument. The author claims that it is particularly applicable to photogrammetry.

That wonderfully successful periodical, *Sun and Shade*, grows better with every number. The September number contains some remarkably fine specimens of photo-mechanical work, the best one, to our thinking, being the direct reproduction of a negative by J. L. Williams, called "Cockle Gathering." We advise those who are chary of admitting an artistic side to photography, to procure the September number and study the charming photogravure of "Cockle Gathering." "Gossip at the Well," is another fine photogravure. *Sun and Shade* has had a phenomenal success which it has richly deserved.

PUBLISHERS' DEPARTMENT.

[In justice both to ourselves, and to those firms whose specialties are mentioned in this department, we desire to state that we neither ask nor receive compensation for such notices as are given. Any dealer or manufacturer who sends us samples of goods for notice will receive just what the merits of the goods deserve, no more and no less. Any apparatus sent us for trial and notice will be returned if so requested. This department is maintained in the interests of our readers to whom timely notice of novelties may be valuable.]

We call the attention of our readers to the advertisement of the Hibbard Flash Lamp in this issue. We have used the lamp with increasing satisfaction for two seasons, and consider it safe and efficient. A convincing proof of its merits is found in the fact that our own is usually to be found in the gallery of a "professional," who keeps it in constant use.

Messrs. Stirn & Lyon inform us that they have just received from Germany a fine assortment of Magic Lanterns, plain and colored Slides, and a stock of Enlarging Lanterns for their popular Vest Camera. The No. 2 enlarging lantern is suited to the enlarging of Kodak negatives, for which it is a reliable and inexpensive enlarging apparatus. Their small ruby lanterns and Star tripods are about the best thing for the money the market affords. Mr. Stirn has devised a neat little finder for the vest camera, but which can be used with any box, which we saw at the Boston Convention, and thought well of.

We call especial attention to Mr. Bookwalter's advertisement. His Field Photography Memorandum Card is one of the most convenient and comprehensive devices we have seen. The card is of a suitable size for the pocket, or it may be attached to the camera or tripod. One side of the card is ruled in squares for entering the conditions under which each negative was made. There are lines for twenty-seven different entries, and every class of subject seems to be provided for. The most valuable feature of the card is that the propor tionate length of exposure for different subjects is given, the standard being sunshine and clear sky, which is marked 1; diffused light is given as 2, seascape 1-4, etc. The opposite side of the card is ruled for the exposure numbers, subject, and remarks. All the data for fourteen exposures can be entered on each card. We heartily recommend Mr. Bookwalter's handy device.

We call attention to the advertisement of E. L. Elliott & Co. They advertise a good lantern at a moderate price, and their new lantern-slide plates seem to promise well. In our next issue we hope to give full information of these goods from personal experiment with them.

A good lens at a moderate cost is that advertised by Buchanan, Bromley & Co. in this issue. We have tested one of the 8x10 lenses and have found that its performance bears no relation to its cost. A special discount is offered to readers of this magazine, and we advise those of our readers in need of a good doublet lens at a fair price to correspond with our advertisers.

Mr. W. H. Walmsley informs us that he is now prepared to furnish slides from his choice collection of negatives of microscopic objects. The series embraces a large variety of subjects, and those who are familiar with Mr. Walmsley's photo-micrographic work will need no recommendation from us to certify to the quality of the slides.

List of Dark-Rooms Open to the Use of Amateurs.

LURAY INN—*Luray, Virginia.*

PROSPECT HOUSE—*Blue Mountain Lake, Hamilton Co., New York.*

HIGH FALLS HOUSE—*Dingman's Ferry, Penn.*

THE STANLEY HOUSE—*Lake Joseph, Muskoka, Ont.*

CASCADE LAKE HOUSE—*Adirondacks, N. Y.* Large dark-room with running water and a safe light. The proprietor, Mr. J. M. Otis, has long been a friend to the wandering amateur and will do all in his power to make a visit to Cascade pleasant and profitable.

HOTEL CORONADO—*San Diego, California.* Said to be the finest hotel in California. The dark-room was constructed under the special supervision of Mr. A. S. Murray, formerly the President of the Pittsburgh Society of Amateur Photographers, and is lighted by electricity, provided with spacious lockers, and fitted up with electric annunciators from the hotel office.

THE RAYMOND—*East Pasadena, California.*

SAN MARCO—*Santa Barbara, California.*

DEL MONTE—*Monterey, California.*

SPENCER HOUSE—*Niagara Falls, New York.*

SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*

FORT WILLIAM HENRY HOTEL—*Lake George, New York.*

PROFILE HOUSE—*White Mountains, New Hampshire.*

THE WESTPORT INN—*Westport, New York.* Has a dark-room with running water.

BREEZE LAWN—*Hunter, New York.* Has a dark-room with running water.

LAKE VIEW HOUSE—*Bolton, Lake George, New York.*

MOUNTAIN PARK HOTEL—*Hot Springs, North Carolina.* The dark-room has running water.

THE CLEREMONT HOUSE—*Southwest Harbor, Mt. Desert, Maine.*

COLE'S HOTEL—*Kidder's Ferry, Cayuga Lake, New York.*

THE CHISWICK INN—*Littleton, New Hampshire.*

[We shall be obliged if our friends will send us the names of other hotels or houses that have special dark-rooms for the use of amateurs.]

United States Photographic Patents

ISSUED IN SEPTEMBER AND OCTOBER, 1889.

SEPTEMBER 27th.

411,487—Plate Washing frame; E. B. Barker, New York, N. Y.

OCTOBER 1st.

412,094—Photographic printing frame; G. A. James, San Francisco, Cal.

OCTOBER 8th.

412,462—Photographic burnisher; Clarence R. Carley, Syracuse, N. Y.
412,511—Vignetting frame; John McKellum, Kokomo, Indiana.
412,682—Photographic plate holder; Joseph Thorpe, Jersey City, N. J.

OCTOBER 15th.

412,953—Photographic mount; H. N. Gale, Bristol, Conn.
413,106—Making photographic pictures; W. H. Stauffer, Asbury Park, N. J.
11,034—Re-issue. Photographic developing bath; Charles Spiro, New York.

OCTOBER 22d.

413,474—Combined plate-holder and receiver; C. C. Balston, Brooklyn, N. Y.
413,611—Photographic vignetter; A. W. Clark, St. Louis, Mo.

CHICAGO. * * * *

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A JOLLY STORY INTERUPTS LUNCH

From a negative by Mrs. S. M. Cleveland

THE AMATEUR PHOTOGRAPHER

AN [illegible]

[illegible]

Our Object

[illegible]

The Camera

[illegible]

It will be observed that [illegible]

THE AMERICAN

AMATEUR PHOTOGRAPHER.

A Monthly Review of Amateur Photography.

VOL. I. BRUNSWICK, ME., DECEMBER, 1889. No. 6.

Our Illustration.

WE regret that we are not able to publish all of the pictures that go to make up the interesting story illustrated so nicely by the series of portrait photographs contributed by Mrs. S. M. Cleveland of Philadelphia, Pa., to the Philadelphia Exhibition, which was of sufficient importance to cause the judges to award her a special diploma for the best work of ladies, but the artotype we present, made by that veteran photographer, Mr. E. Bierstadt of New York, will certainly convey the meaning and aim of the author, though it may not possess all the delicacy of a silver print. How Mrs. Cleveland came to make these pictures is told so well in her own words that we here give them.

The Genesis of a Picture.

IN publishing this picture of mine, you must remember it is but one of a series of three that, by mutual relation, tell a tale of child-life. Thus it is like a sentiment torn from its context—pleasing, perhaps, in itself, but quite failing to give the author's larger meaning. Nor can I illustrate the relation of triangles to pose (a hobby of mine) as though the three pictures were before me;—triangular forms not only as expressing sentiment, but as nature's fundamental scheme on which all sentiment in the pictorial and plastic arts must necessarily be based. But it may be serviceable to some other worker if I dwell a little upon the human geometry of this special picture and its significance.

It will be observed that if lines be drawn about my little subject as here posed, they form an isosceles triangle, with the head at the apex. Now, though this relation of subject to outline is eminently proper and even necessary to the sentiment of my second picture, it cannot express the senti-

ment of this. The kind of triangle must be kept, but it needs to be reversed by a lengthening of the sides. This I cannot gain by the elements of the figure itself; for if the right arm were to stretch along the table, relaxed, it would only be a meaningless sprawl considering the tense position of the left; and, straight, it would lose me the attitude of half-indolent and picturesque attention that I now have. Therefore the bitten apple is introduced, and the eye, by unconsciously drawing a line from it to the head and from it to the left elbow, forces the figure to occupy the base of the triangle.

Now what does this arrangement of lines express? Precisely what I wanted to say,—infantile attention gathering itself together, not to any high degree, but just coming out from its baby unconsciousness as far as a baby laugh will take it; and what I here urge is that this special triangular outline not only has a meaning *per se* and *as* an outline, but that its meaning is identical with that conveyed by the facial expression and the details of the picture. Or, reversing the statement, given this facial expression of increasing laughing interest, no other outline could have been appropriately used. My little boy was at his lunch-table, with mind relaxed under appetite; and that relaxation is indicated by the long lines on his right. His father begins to tell him a comical adventure of Jack with the Giant: the left arm at once comes up from its lazy position on the table, and, supporting the chin, makes the short line which denotes tension. To enhance this thought, the face is turned towards and in line with the arm which creates the thought—away from the bitten apple and the mug of milk which stops half-way to the mouth. In other words, the proposition upon which I have worked and to which I should like to call the attention of my fellow-workers is this: When the isosceles triangle is used as the skeleton of composition, the figure subtending its apex-angle must have the expression of expectancy, development, joy—in a word, of increasing or of assured life, if that figure exceed half the length of a side. But when the figure is less than this indicated half, the only expression which it dare assume is one of repose, dejection, failure, anguish—in a word, of depressed vitality or lowered emotion.

This is strange doctrine, I know, to those photographers who fail to recognize the dignity that their art can acquire from the dignity of sentiment which the human figure can give it; but I believe it to be as true—as indisputable indeed—as any other geometry, though this must appeal for its validity to the inner æsthetic sense. Test it here. Suppress the apple: do you not feel at once that the picture loses in *insouciance?* Or let the left elbow slide a quarter-inch further to the left—would you not miss that gathering together of the child's spirit that is now expressed by the head in line with the arm and by both forming the short side of the triangle? Why not recognize this, and try to work out our problems not by hap-hazard grace or the impulses of the moment, but in accordance with those verities of the laws of Form on which all Art is based.

As far as technique is concerned, if the picture please you in point of light and shade, it has been obtained by disregarding that tenet which, as I understand, is current among photographers: "Take care of the high lights and the shadows will take care of themselves." In my own practice, I have reversed this dictum—whether with success or not, it is for my fellow-workers to determine. I look to the high lights, to be sure; but it is that they may present no garish contrast. With far more solicitude, I seek to light the shadows that they may give gradations of tone. The room in which the picture was taken is, by courtesy more than by use, called a studio; for with Browning's Lutwyche, "I am a painter who cannot paint." It has a small sky-light and two side windows facing north—one of which I always close, and the other I use to throw a light upon the floor to be reflected thence upon the lighted portion of the face, and to relieve the shadows under the chin and neck. A large flannel stretcher serves as background, and, instead of the regulation large screen, several smaller screens are used, adjusted at such angles as the lighting of the subject seems to require. It is partly through this care in the study of shadows, partly by a good Beck lens and a Prosch shutter, that I have this picture to present to you.

My dark-room is the makeshift that must often obtain in private families. It is simply my bath-room transformed for the occasion. A Carbutt lantern lights my Cramer plates, and kindly night prevents them from being light-struck. A bucket turned upside down under the bath-tub tap serves as a wash-box. This is not a very costly or elaborate outfit, and it would seem as though it must be far removed from anything scientific; but I have endeavored to show that this is not where the "science" comes in. That is seen in posing the subject under the laws of Form, and in lighting the subject so that the relative claims of contrast and gradation be fairly adjusted. The rest is care.

MRS. S. M. CLEVELAND.

Philadelphia, Pa., November 15, 1889.

EDITORIAL.

OUR Mr. Beach had the pleasure of co-operating with Mr. Randall Spaulding, and Mr. Charles Ehrmann, editor on the *Photograph Times* staff, in judging a large number of photographs submitted for competition by the members of the Hoboken Camera Club, on the evening of November 21st. The work was divided into five classes, and but one diploma was awarded in each class. To prevent one competitor from receiving two diplomas, each competitor received a certain rating by the judges for the work submitted by him in each class. Then the ratings of each competitor

for each class were added up, and those who had the highest general average were awarded the diplomas. Considerable time was required, as each separate picture had to be valued, so to speak. The plan was to make twenty the highest number for a perfect photograph. Each competitor had the right to submit three photographs in each class. Thus if there were three landscape photographs, one might be valued at twenty, another at fifteen, and another at twelve; adding the three together and dividing by three gave the the average for that competitor on landscapes as fourteen. The average in another class might be sixteen, another ten, another eighteen, and another seventeen. Adding together the averages in each class, the total would be seventy-five. Now by dividing this by the number of classes (five), we arrive at the general average of that competitor, which is fifteen. This latter step was necessary, since some competitors did not submit photographs in but four of the classes. In that case the average of each class was taken, then the sum total was divided by four, or as many classes as he sent exhibits in. The equity of this mode of judging was manifest to all, and gave considerable satisfaction. It was towards midnight before the work was over, then the judges were escorted by a large number of the members to a repast in a neighboring restaurant, being very handsomely treated by President Mott and the other officers. Both Mr. Beach and Mr. Ehrmann complimented them upon their work, seeing a bright future before them if they kept on as they had begun. A flash-light picture of the group around the table was necessary, before the judges were permitted to depart. The club has a very pleasant, nicely furnished room, on Washington Street, centrally located, with a convenient dark-room, capable of accommodating four members at a time. It was fitted up, we are told, entirely by the members themselves.

WE beg to acknowledge from one of our subscribers the receipt of one dollar, for the Daguerre Statue Fund. We hope others will contribute. It is intended to erect a statue of Daguerre in this country, the cost to be defrayed by subscriptions from photographers.

MR. STODDARD, the energetic landscape photographer, residing at Glen's Falls, New York, lately tried the experiment of photographing the statue of Liberty in New York harbor, at night, by flashing over a pound of magnesium powder with gun-cotton, suspended from a wire off leading from the hand of the goddess to the mast of a schooner anchored off quite a ways. The cotton was ignited by electricity. It is said to have produced a very startling effect in the harbor. We have not heard whether or not it was successful.

Miss Barnes' Studio.

THE practice of portraiture by amateurs, under conditions especially adapted for it, is so rare that it is with pleasure that we have the opportunity of presenting to our readers illustrations of a modern studio, as designed and used by Miss Catherine Weed Barnes, of Albany, New York. How she came to build it is described in her own words in Anthony's 1889 Annual, as follows:

"Few private houses have rooms, even under the roof, that can be utilized for sky-light purposes, and few people are willing to disfigure the outward appearance of their houses with a regular sky-light. Being allowed to carry out my plans, I was obliged to remove from the center of the mansard flat roof a small square cupola. There was a large attic, but as no permanent partitions were allowed, I divided off the portion for the studio with heavy curtains, dark on the south side, and gray on the north side, of the room. The roof timbers were cut, and a sky-light nine feet wide by nineteen feet long was erected so as to rise considerably above the roof line. The floor of the attic was then too far below the top of the sky-light for quick portraiture, hence a stage or platform was erected at one end, nine feet square and two feet high, on which the sitters are placed. In the back of the studio are three mounted backgrounds; two painted in soft shades by Mr. Seavy, while the third is blank, on which pastel designs may be drawn and removed.

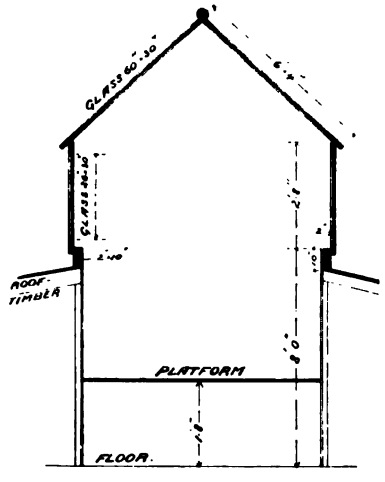


FIG. 1.

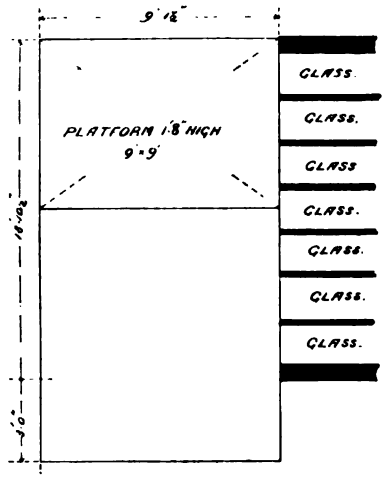


FIG. 2.

Fig. 1 is cross-sectional elevation of the studio, showing the line of the attic floor, the roof timbers, the glass sides, and peaked glass roof. The platform for sitters is at one end. Fig. 2 is a plan of the studio, showing the position of the platform, and the extent of the glass sides and roof. The side-lights begin at a distance of about five feet from the platform floor. The position of the length of the room is east and west.

"The light comes from the north side of the studio, and the whole skylight is of glass, except the frame-work and a few inches of curbing to protect it from leakage. The peculiar peaked roof of the skylight was necessary in order that it might be symmetrical in appearance with the rest of the building. The excess of light thus given is overcome by the use of gray shades on the east, south, and west sides of the room, while those on the north are black, in three sections, suspended from a wire and pushed along by a long pole from the floor. Some of the curtains are made in two parts, sliding from top or bottom as desired. There are seven side lights, each pane of glass being 26x30 inches. The top lights are of the same size and number, but are made of fluted glass. Ample facilities for ventilation are also provided. Directly off from the studio is a large negative closet, and a short flight of stairs leads down to my dark-room, a transformed bath-room, supplied with running water and ample closet room for storage purposes."



INTERIOR OF THE STUDIO.

Our illustration of the interior of the studio is reproduced from a photograph made by Miss Barnes with a wide-angle Dallmeyer lens. On the platform for sitters, may be seen the variety of backgrounds, accessories, etc., which Miss Barnes has provided herself with. In addition to these, she writes: "I draw on almost everything movable in the house, and go to the extreme limit in the way of taking trouble to perfect a portrait. Poor negatives rarely have the chance of a 'proof,' but are at once rejected on the first glance." On one side may be seen a substantial portrait camera-stand resting on a movable platform carried on castors, the whole being about one foot high. On the camera-stand is a fine 8x10 portrait camera, arranged to hold different lenses.

One of the recent additions to her large number of lenses is a new Wide-Angle Voigtländer, 8x10, for groups. This, she says, with her large Voigtländer, Euryscope, and 3 B. Dallmeyer, makes all that is practically necessary for portrait work. On the floor at the front end of the platform is a gas-stove for heating the studio in winter. A head-rest and vignetting screen are also used. The expense of constructing the studio was between four and five hundred dollars. For making exposures Miss Barnes prefers the Green Shutter, located just back of the lens in the camera. The softness, beauty, and artistic feeling shown in some of her recent portraits, on exhibition at the Society of American Photographers, in New York, indicates that she will soon attain a reputation for fine artistic portrait work which will be the envy of the professional photographer. That her pictures are already sought for by some of the foremost magazines in this country, shows how highly her work is esteemed. We wish every lady amateur had the same enthusiasm.

The Stereoscope and Animal Vision.

STEREOSCOPE means solid seeing. In reality it is the pictural repetition of what we see in nature with two good eyes. We see things from two points about two and a half inches horizontally apart. The two pictures in our eyes are nearly, but not fully, alike. By looking at near objects, and closing first one and then the other eye, convincing proof of the difference of the two images is obtained. The stereoscopic picture contains two pictures of that same nature—the one picture, taken from the one point, the other two and a half inches apart from this. The stereoscopic instrument you look through to see the stereoscopic effect combines these two pictures into one by magnifying the picture on the right side towards the left, and by magnifying the left side picture towards the right side. Thus the two images overlap each other and appear but one, with the same rotundity we see in nature itself. The effect is surprisingly realistic, far superior to the best painting, for a painting is but the image of nature as seen with one eye.

No mechanical drawing (except the very simplest) can be made perfect enough to produce the effect of binocular vision; only the camera is sufficiently accurate to give the very precise little variations to the two pictures required to repeat binocular vision.

The first stereoscopic picture I saw (1850) was a very simple drawing of a small sky-light. The effect, however, was so surprising as to make stereoscoping my hobby. To get a stereoscopic daguerreotype of a china figure was the first attempt, and the magic reproduction of the high lights on this figure convinced me that the stereoscope would give what a single daguerreotype never could.

I tried, therefore, to add stereoscopic portraits to my practical daguerrean business. Many failures or distorted pictures, ghostlike and dreadful, put me at last on the right track. It was that we have only to repeat our binocular vision to obtain a good stereoscopic picture. I took, therefore, the two pictures from points two and one-half inches apart, and used as small an opening or diaphragm as one-eighth of an inch. This would give a natural, undistorted picture, but the small diaphragm caused too long a sitting for a daguerreotype. In studying to overcome this difficulty I regarded our vision as a triangular measurement of distances, wherein the distance between the eyes is the base-line, and the two lines of vision of the eyes to one point the two other sides of the triangle. The lengths of such a base-line will not be affected by enlarging the opening perpendicularly, and therefore I used a diaphragm one inch high and three-sixteenths of an inch wide with full success, the sitting for daguerreotyping not being too long.

This long opening instead of the round, in combination with binocular vision, indicates the reason for the cat's eye with its large pupil, contracted often to a mere fine slit.

A stereoscopic picture with one inch opening and two and one-half inches centrally apart, lacks rotundity or definition of distance. Thus the cat opens her large pupil fully at night to see her prey, and then contracts the same to measure the distance she has to jump upon it.

By stereoscopic pictures we can also show the effect upon vision when the animal's eyes are more or less separated. To me it appears to indicate that in the animal kingdom beings see nature in the reverse proportion of their size, or rather in proportion to the separation of their eyes. So, for instance, the elephant sees things about one-third smaller than we do. Stereoscopic pictures taken from points sixteen inches apart appear so much smaller, and I have constructed an optical instrument that gives the same effect. You look with each eye into a prism, so set as to see the same object reflected upon mirrors sixteen inches apart.

I have written this short essay to show the importance of the stereoscopic study and to induce some amateur photographer to verify or contradict my statements. I hold it to be a field that will add new laurels to photography fully as interesting as the instantaneous process has been to animal motion or the prolonged exposure to astronomy.

ALEX. BECKERS.

NOTE.—We have had the pleasure of personally testing Mr. Becker's instrument for proving that the elephant sees objects much smaller than the human eye, and the appearance was very much as he describes it. It is an interesting subject for study; we shall hope to hear from others.

Why Ladies Should be Admitted to Membership in Photographic Societies.

To the Editors of the American Amateur Photographer:

PERMIT me to call your attention to an article copied in the *Eye* from the *Photographic News* and signed "Perplexed." This seems to call for more than an editorial comment, and, as one of the sex to which the article refers, I beg permission to answer it.

The subject in question is the advisability of admitting ladies to photographic societies, both here and abroad. "Perplexed" gives seven reasons, or rather, objections, to such admission, but both of the magazines referred to above differ, as I do, from his opinions. As once a corresponding and now an active member of the Society of Amateur Photographers of New York, and as a woman, I feel called upon to give over my own signature the woman's side of the question. In a nearly two years' membership of the above society I can testify to never having been made conscious of any difference of sex regarding the use of the society's advantages, except, perhaps, that the gentlemen have been more than kind in offering me their assistance.

As to the seven objections given by "Perplexed," some need no attention; but one is that the members generally smoke, and the presence of ladies would restrict this privilege. In my own experience I have found that those gentlemen who happened to be in the dark-room at the same time as myself seemed to feel it no trouble to lay aside their cigars and remove their hats while I remained in the room. In other words, they did not find it difficult to act like gentlemen. Another objection he makes should never be raised, as it insults alike ladies and gentlemen, and makes this club a fair missionary ground for the W. C. T. U. He says that if ladies are admitted that gentlemen cannot bring "alcoholic refreshments" to the rooms. He says also, that ladies might be obliged to hear improper jokes, and that the wives of married members who do not themselves use the camera might consider a club improper which admitted their husbands and other ladies than themselves.

The editorial comments on the above, in both the *Eye* and the *Photographic News* are such as I can fully endorse: that the club referred to is one which no lady would desire to join. Ladies, who truly deserve that name, would infinitely prefer to work in their own dark-rooms, however inconvenient, rather than accept the questionable privileges of such a club; and, in any case, would probably seldom visit the club, except on regular nights.

"Perplexed" says that, in his club, several members have threatened to resign if ladies are admitted. The work of members is sometimes not proportionate to their own estimate of it, and it is possible that the members referred to might be worth more outside than inside the club. Those ladies who do

good work find little difficulty in having that fact properly recognized, and can afford to ignore such slurs as are given by "Perplexed." Does that gentleman consider a photographic club a place which cannot be frequented by ladies without loss of self-respect or the respect of others? Does such a reflection bear more heavily on one sex than on the other? The gentleman does not say that ladies do not do good work, but he wishes to refuse them the advantages he confesses as necessary for his own sex. They may work, but must do it by the hardest way, and lose the mental attrition possessed by their brothers. This work in no sense derogates from womanly dignity, and the laborer is just as worthy of her as his hire. In this work there are many occasions where the gifts, supposed by the most moss-grown tradition to specially belong to women, serve them well, and make the visible result better even than that of men. Photography is peculiarly suitable work for ladies, and "Perplexed" will deserve his name when the time comes in which it will no longer be necessary to allow the mere difference of sex to rule out of a photographic society those who may possibly become its greatest honor.

Let no ladies so thrust aside think it best to organize a society of their own. This may be considered independence, but it would be far wiser to become members of some society which, possessing more common sense, will admit ladies and allow them to win their way by fair competition. Up to now the great weight of advantage in artistic and scientific improvement has been the private property of men, and woman, as yet, cannot by themselves attain much progress in such work. Let them get needful information and practical help wherever they can, and there are societies which are willing to give it. I say, therefore, to all societies, to give us a fair field and no favor; let us win our spurs side by side with our brothers, and the result thus gained will be worth all the trouble required. The day is coming, and will soon be here, when only one question will be asked as to any photographic work—"Is it well done?"

CATHARINE WEED BARNES.

Photo-Micrography.

HAVING made reference to some of the methods of preparing objects for photo-micrography, it may be well to turn now to the use of the camera with the microscope. Of course, on general principles, one will say that the better the apparatus, other things being equal, the better the work; and yet it is not necessary that the most costly microscope and camera be in the hands of him who would achieve success in this department. It is wise, of course, for one to put his money into his lenses rather than into a stand for his microscope or a camera box.

It is best for a beginner to use low powers, and photograph the larger

microscopic objects. Experimenting with these he can go on to the use of the higher powers, and try his skill on some of the very small things, which are a test of the skill of the professional.

A microscope that can be swung into horizontal position is desirable; further, it should be so built that the mirror can be swung up over the stage for the illumination of opaque objects. An objective of two inches, one of one inch with one or two eye-pieces and a sub-stage condenser will complete the outfit for a beginner. Those who are expert in the use of the microscope, will probably add to the objectives already mentioned others of higher power.

A necessary piece of furniture is a board, several feet long and a foot and one-half wide. The exact size is immaterial; but it will be well to have this board as straight and flat as possible. A good plan is to get a well-seasoned piece and let into the under side, at intervals, pieces of iron to run the width of the board and keep it from warping. This is to be the working table for the microscope and the camera. In addition to this board a box will be needed on which to place the camera. Experiment will determine the height of it. It must be just high enough so that when the camera is put on it and the microscope inclined to horizontal position the tube of the microscope will enter the center of the front of the camera. Make a front for the camera with a round hole of a little larger diameter than that of the tube of the microscope, of rubber cloth, or of patent leather dense enough to keep out the light, make a tube of the diameter of the hole; fasten the edge of one end on the inside of the front of the camera. Then put the camera on the box, and the microscope in front of it, pushing the tube of the microscope through the rubber or patent leather tube. With a strong rubber band fasten this tube on the tube of the microscope, so that no light can leak through. A good strong light must now be put where its rays can be thrown by the mirror through the object to be photographed. In the case of large objects, it will not be necessary to use the sub-stage condenser. The light can be thrown directly through the object by the mirror. Photo-micrography differs from ordinary photography in the fact that while in the latter the light is reflected from the object to be photographed, in the former the light comes through the object. Hence in proportion to the transparency of the object will be the detail in the photograph. For this reason it is better to use carbolic acid, water solution, to clear microscopic objects, which one wishes to photograph, than to use oil of cloves.

In order to focus sharply, it will be advisable to have the ground glass very fine. A good device is to have a small part of the ground glass covered with a thin piece of glass stuck on with Canada balsam. An ordinary microscopic cover-glass will do. But the most useful piece of apparatus at this point is a focusing glass. The watchmaker's glass attached to a wire so that it can be held over the eye is the best device. With this one can easily get the lines of the object sharply defined. Ordinarily the focusing can be

done by the course adjustment. With the focusing glass on the eye, and the hand on the course adjustment, the head covered with the focusing cloth, one can easily, after a little practice, focus to his entire satisfaction. In more delicate work, however, a cord can be passed around the wheel of the fine adjustment, and by means of staples or screw eyes, carried back of the camera. The ends may be free and held down by weights or fastened together so as to make an endless cord. By pulling this the adjustment may be made to very great nicety.

Let us then proceed as we would if about to make a photo-micrograph. We put the board so that each end is on a separate table and high enough so that the elbow rests easily on it. The microscope is placed in position, with tube horizontally inclined. The camera is placed with the box on the board and brought forward so that the tube of the microscope is pushed into it through the rubber tube. The eye piece may be used or not, according to desire or need.

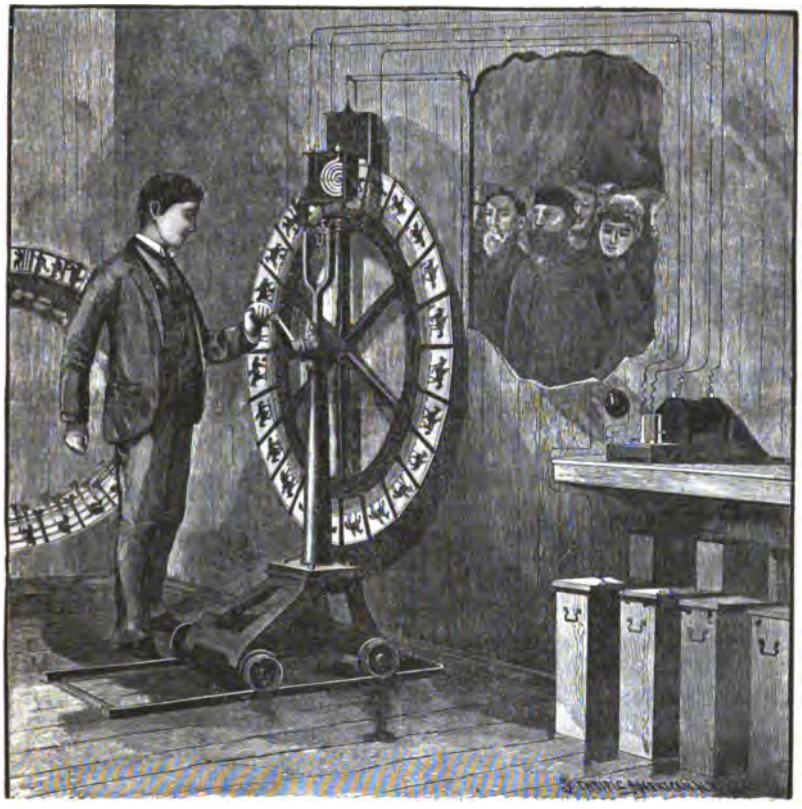
The light is placed in position. Put now the object to be photographed on the stage and focus. It is sometimes well to get the object in focus before putting the tube into the camera. Of course the size of the magnification will be affected by the extension of the bellows. When the object is satisfactorily focused on the ground glass, see that the rubber band has been put around the tube to prevent the leaking in of light. Then take a black card and place it in front of the lens and close up to it. Put in the plate holder, draw the slide and make the exposure. The time will depend upon conditions with which one must himself form acquaintance, ranging from five seconds to two minutes for a two-inch objective. *Experience* alone will determine. Having made the exposure, place the piece of black card-board again in front of the objective, and push in the slide of the plate-holder.

In our next article we will take some microscopic objects and follow on step by step from the preparation for the microscope to the finished photograph.

The Electric Tachyscope.

WE are indebted to the *Scientific American* for the illustration of this very interesting instrument, designed to reproduce to the eye the exact motions of moving objects, which have been recorded by photography. It is the invention of Ottomar Anschuetz, Lissa, Prussia, and is said to have cost $2,000. Twenty-four pictures, say of a moving horse on a gallop, are taken simultaneously in the fractional part of a second, with very small cameras, the images being scarcely an inch in size. These are enlarged to measure about four by five inches in size and are made into transparencies, which are secured in rotation in a circular removable metallic frame. This frame is attached to a large metal skeleton wheel by eccentric

clamps, and is rotated by a crank, as seen in the engraving. A large battery on one side supplies the electricity, and in the small box behind the wheel at the top is a coiled electric Geisler tube. Just in front of the tube

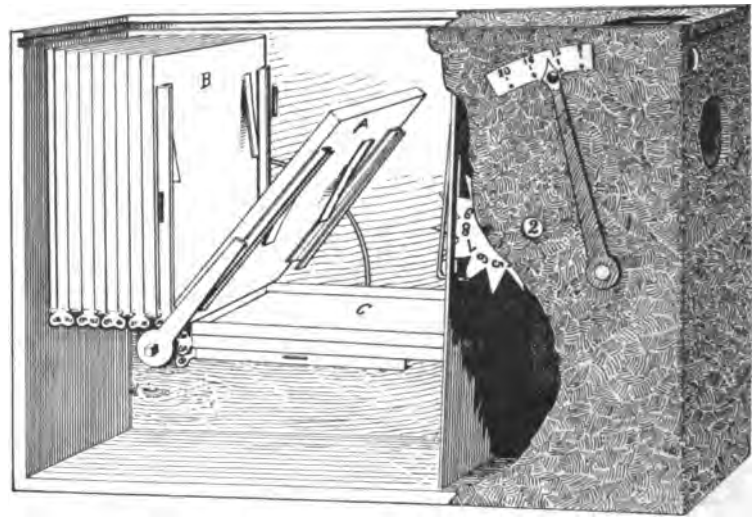


THE ELECTRIC TACHYSCOPE.

is a thin ground glass for diffusing the light. Suitable projecting pins on the circular rotating picture frame, automatically make and break the electric circuit the instant a picture appears before the Geisler tube; thus the picture is only instantly illuminated. Bringing them, however, by in quick succession, the illumination of one is held by the retina of the eye until the illumination of the next appears; hence they seem to blend into each other, resulting, as one looks through the window, in seeing a single picture in motion. In the picture of a man on a galloping horse, every single movement of the horse and rider can be followed. Not only do the legs of the horse move according to the gait, but one sees the dust rise, the horse's mane and tail fly and nostrils extend. The rider is jerked in his saddle, he urges his horse, pulls the curb-chain, and moves back his leg to apply the spur.

The apparatus is to photography what the phonograph is to the reproduction of speech. It conveys the true motions of animals in exact accord as they appear to the eye. By having a number of lenses arranged in rows near each other in one large camera, Mr. Anschuetz is able to make twenty-four different pictures in the short space of $\frac{72}{100}$ of a second, using his curtain shutter with a horizontal slit in moving in front of the plate.

The instrument is on exhibition at the offices of the United States Photographic Supply Co., No. 3 East Fourteenth Street, New York, and it is well worth seeing, especially to those who take an interest in whatever is new in photography.



Hetherington's Magazine Hand Camera.

To the Editors of the American Amateur Photographer:

Dear Sir,—In answer to your request that I furnish a description of my magazine camera for your readers, I herewith inclose a cut and the following few words of description:

Referring to the diagram, A, B, and C are thin metal plate-holders or carriers. There are twelve or more of these, as shown, all hinged or linked together by links which are part of the structure of the carrier. These links are pivoted together by small rods the ends of which project about one-eighth inch outside at each side. These projecting ends travel in a slot in a metal plate on the inner sides of the box and these slots form the guides in which the hinges travel. The slot turns down at the first plate-holder, thus making a right angle. When the pivots of the hinges approach the turning-down place of the slot, they will, perforce, turn down and follow it, thus carrying the plate-holder through an arc of ninety degrees. The act of doing this draws forward the succeeding holder until it occupies the plane just vacated by the one turned down. A stop darts through the opening on the side of the camera and holds it firmly in place. The carriers are thrown down by applying a key, which actuates a thin spring arm, that engages with the sides of the carriers. There is one of these spring-arms at each side. When the key is turned back for the next holder, the spring-arms spring past and leave the turned-down plate-holder as shown, sensitive side of

plate down. Each metal plate-holder is flanged back so that it protects its following plate from light. The plates are held in cleats and springs as shown in cut. As each plate goes down it engages with the star-wheel shown in cut, and revolves it, thus causing successive numbers from one to twelve, to appear before a hole in the side of the box. This is the registering apparatus. The lens is adjusted by lever and indicator as shown. The shutter is of the continuous rotation type, making three exposures to each complete revolution. The view-finder is situated in the top of the box as shown, and is so arranged that if the lid be withdrawn, it will spring up like a jack-in-the-box. When the lid is put back into place it is necessary to first press down this finder and then slide in the lid. When the lid gets into its proper place, the finder will pop up into a place cut out for it in the lid, and thus forms a light-tight joint and at the same time a perfect lock. To again remove the lid, it is necessary to press the finger upon the finder; it will then go down and the lid can be withdrawn.

The accompanying cut shows the box with one side partially removed or cut away, so that the interior may be viewed.

Yours Respectfully, F. A. HETHERINGTON.

Comparative Tests with a New English Lens.

BY WILFRED A. FRENCH.

[Read before the Society of Amateur Photographers of New York, November 12, 1889.]

My attention was called, a few weeks ago, to a report in a photographic magazine of a test made by an eminent amateur, with a new English lens. The article had no special interest for me except that the new lens was compared with one of Voigtländer's instruments, a wide-angle Euryscope lens, which it appeared to equal in speed and defining power. Now, as many of you gentlemen know, I am a little sensitive on this point, as I belong to a large class of amateurs who are firmly convinced that the Euryscope lenses in their present improved form cannot be equaled, much less excelled; and as, moreover, the English lens alluded to, claimed to be constructed of the new Jena glass, I was seized with a desire to ascertain for myself how far its claims were justified.

Fortunately I found among the large stock of lenses at Messrs. Benj. French & Co.'s a type of lens which very nearly approached the ratio of the English lens, namely a No. 0 A Euryscope of the less rapid series, composed of special Jena glass, having a diameter of 1 inch, a working aperture of $\frac{1}{8}$ of an inch, and an equivalent focal length of 7.06 inches; against which I pitted the No. 5 "Paragon" lens, made by Swift & Son, England, with a working aperture of $\frac{3}{4}$ of an inch, and a focus of 7.06 inches. Thus both lenses were of equal focal length—the advantage of illumination being naturally on the side of the German competitor, on account of its greater diameter and shorter focus. Swift's lens is the smaller lens of the two; neat and compact in appearance, and is provided with an Iris diaphram, which can be set to secure six openings, ranging from full aperture (F—9.40) to F—64, plainly indicated on the barrel. Upon investigation I found that the numbering of these stops was not quite correct in three cases, so I take the liberty of giving my own calculations, which have been verified by able assistants. It is listed to cover from 5x8 to 6½x8½. The Euryscope is a little larger than the Swift lens, has a set of six separate stops, and is a regular 4x5 lens, being mostly used in detective cameras.

Many persons are not sufficiently painstaking or conscientious, when comparing lenses as to speed, focal depth, and defining and covering power; and the common practice of trying them successively on one camera cannot, it seems to me, be regarded as in the least fair or conclusive. Desiring also to be pretty sure that I might not be accused of a lack of fairness, I conducted the experiments in the presence of several well-known amateurs, who examined each step of my proceedings.

I fitted up two 5x7 cameras, attached the two lenses, each provided with a "Low" time and instantaneous shutter operated by a bulb, and placed them side by side on a carefully-leveled box, in a window affording an unobstructed view of Milk Street, one of the principal thoroughfares of Boston, with tall buildings either side reaching up beyond the limits of the ground-glass, and the lofty Equitable Life Insurance building some 800 feet away, form-

ing the most prominent object in the background. All the plates used were Cramer No. 40.

My first experiment was to test the speed and definition of each lens with full opening, viz.: Euryscope at F—7.50 and Paragon lens at F—9.40. I centered each plate on the five-story granite building at the right, focusing, as is my wont, away from the center, selecting in each instance the gilded head of a lion holding a large stylographic pen, nearly the entire picture being in deep shadow. Holding both bulbs in one hand, I made two simultaneously instantaneous exposures, which were both visible and audible. Both plates were put in one tray, and covered by the same developer, and developed for five minutes. The resultant negatives and prints show that the Euryscope yielded the better exposed plate and a surprisingly flat field, in area exceeding a 4 x 5 plate, its listed limit being 5 x 7. The Paragon lens did not respond so well, the exposure being much too quick and the extent of well-defined detail being limited to about 3½ inches. The focal depth of each appeared to be equal.

The next test was to compare the lenses under exactly similar conditions, so I inserted the second stop (11-16 in. diameter) in the Euryscope, thus rendering the ratio of each lens about F—9.50. The exposures were again simultaneously instantaneous, yielding results that might have been anticipated. The Swift behaved as well as before, but the Euryscope produced, what, under the conditions, may be regarded as a satisfactory picture, technically. The exposure had not been too quick; the penetration was improved, and the definition at the extreme margins had gained in clearness.

The next experiment was a simultaneous exposure of three seconds, with each lens at F—44, the light being at this time very weak. Swift's lens gave excellent focal depth and a flat field from edge to edge; but the Voigtländer excelled it at every point, showing superior illumination, greater penetration (compare flag-staff on the Equitable building), and perfect marginal definition—the sign at the extreme right being microscopically sharp.

The last test was on a 6½ x 8½ plate, this being the advertised limit of the English lens, although I have never known the No. 0 A Euryscope to be used on a plate larger than 5 x 7. Two 4—4 cameras were provided and fitted up as before. Desiring to ensure uniform definition on a so much larger plate, I set the focus somewhat higher up, selecting the carved letter "D" in the small pediment on the building to the right. Putting each lens at F—44, which necessitates the smallest stop in the Euryscope, and leaves only one smaller in the Paragon lens, I exposed the two plates together for two seconds. The results were gratifying in the extreme. The picture produced with the English lens, although underexposed, shows an even sweep of superb and correct definition from one end to the other, thus proving the lens nobly responsive to the demands made upon it. The Voigtländer, on the other hand, not only exceeds the covering capacity limited by its makers, but surpassed the Swift lens at every point. The picture is an eminent technical success, and yields illumination, sharpness, mechanical precision and focal depth of the most desirable quality, and a certain softness of effect, withal, that is very pleasing.

A thorough inspection satisfies me that the Swift lens is, indeed, made of Jena glass, now an article easily procurable, but which of the one hundred and fifty kinds that are made is impossible to say. Certain it is, however, that Swift and Voigtländer do not employ the same quality of glass, as the latter has his especially made for him, the formula being known only to Schott & Co., besides himself. The experiments appear to show that the Swift lens is excellent for views and architectural subjects, also under favoring conditions for instantaneous photography, while its width of angle, which is not inconsiderable and just equals that of the Euryscope, renders it valuable for use at close range. The Voigtländer is naturally desirable for similar work, but it seems most admirably adapted to difficult instantaneous work, since it illuminates and defines so well with a large stop.

The foregoing remarks suggest that one ought not to regard the ratio of opening to focus as an indication of the merits of lenses of different manufacture, for that depends chiefly upon the quality of the glass, the thickness of the lenses, the manner in which they are ground, corrected and finished, as well as upon the character of the curves upon which the instrument is designed. If, then, this be so, but little benefit will be derived from the system of numbering stops, which has always appeared to me as possessing but little merit, except, perhaps, when persons are using lenses of the same type made by one optician.



BY LOUIS TAWS.

"AT OGONTZ."

THE

AMERICAN AMATEUR PHOTOGRAPHER.

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W. H. BURBANK. F. C. BEACH, NEW YORK. W. G. CHASE, BOSTON

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EDITORIAL COMMENT.

The new volume of the AMERICAN AMATEUR PHOTOGRAPHER which will begin with the January number will maintain the same high standard of excellence which has already won for it a leading place among the world's photographic journals. The plans of the editors for the new volume include much that no progressive amateur can afford to lose. Those features which have already proved so attractive and helpful will be retained and they will be supplemented by others of equal value. "Photo-Ceramics," the "Application of Photography to the Problems of Surveying," and other scientific uses of photography will be fully treated, and two new departments will be added. "Foreign Notes" will give a comprehensive and condensed survey of the latest researches as reported in foreign journals, and the monthly "Index to Current Photographic Literature" will call attention to all the noteworthy contributions to the literature of the day, and every effort will be made to present a full, reliable, and timely monthly *résumé* of all that is being done by leading workers at home and abroad. In short the AMERICAN AMATEUR PHOTOGRAPHER will make an earnest effort to keep abreast of the times, and to fulfill its mission as a catholic interpreter of photographic methods to American amateurs.

Mr. Louis Taws is the first to respond to our invitation to amateurs to reproduce examples of their work. The charming "Mosstype" which forms our inset is one of his first efforts in landscape work and will be found to repay careful study. As we have received several inquiries as to the cost of these reproductions we desire to state that we will reproduce any negative in half-tone for $15.00, and furnish prints on 11 x 14 paper for framing at $1.00 per hundred. A photogravure plate will cost $25.00, and artist's proofs will be furnished at $3.00 per hundred. We hope that other amateurs will follow Mr. Taws' example and allow us to reproduce their best work on the above terms.

Through the courtesy of the Chicago Club and its Secretary, Mr. Morrill, we have had an opportunity of testing the two developing agents, Pyrocatechin and Para-Phenylendiamin. Our conclusions are so nearly identical with those reached by the chemists of the club, and reported elsewhere, that we deem it unnecessary to give them here. We may say, however, that Pyrocatechin promises to be the best developer yet known for slides and process work. Few, however, will care to pay $7.00 an ounce for a developing agent. These samples are believed to be the first ever imported into this country, and we congratulate the Chicago Club on its commendable enterprise, which cannot fail to prove of real and lasting value to photography.

We recently offered a year's subscription to the AMERICAN AMATEUR PHOTOGRAPHER as a prize to be competed for by the members of the Mystic Camera Club at its last field-day. Mr. J. F. Johnson's "Among the Reeds" was awarded the prize, and the negative has been sent us and will be reproduced in an early number. We congratulate Mr. Johnson on the artistic result he has produced.

An ingenious focusing glass has been invented by Mr. Frank Marion of London. It consists of two short tubes soldered side by side. One of these is an ordinary focusing glass, at the end of the other tube an india rubber sucker is fastened which holds the arrangement in place on the focusing screen.

Mr. Geo. H. Chase, a Newport subscriber, has been experimenting with the platinum process and sends us a specimen print which speaks well for his method. We hope to prevail upon Mr. Chase to give our readers a description of his methods.

To the Chicago Camera Club belongs the credit of having produced the most tasteful club book which has come to our notice. The printing, make-up, and binding are alike excellent and reflect credit on those who had the matter in charge. The cuts and sketch which appeared in our October number are reproduced and form an attractive feature in the book.

We thank our friends for the trouble they have taken in preparing the prints and sketches for the competition, and we hope that they will feel that the awards were rightly bestowed. In a matter of this kind it is not easy to satisfy all.

A New Printing Process.—Patents have recently been taken out in France and England for a new printing process with ferric oxalate. The following is the list of the ingredients:

Ferric oxalate,	7 parts by weight.
Argentic nitrate,	7 parts by weight.
Gelatine,	7 parts by weight.
Tartaric acid,	3 parts by weight.
Water,	128 parts by weight.

Paper or other substance is coated with this emulsion and when dried it gives an image of a sepia brown which is developed or fixed in a bath of hyposulphite of soda. We have not tested the method, but would be pleased to have some of our readers do so and report the results.

The Holiday Number.—Unless the engravers disappoint us we shall make the issue for January our holiday number. There will be two or more full-page illustrations and numerous smaller cuts in the text. The "Prize Tour Competition" has brought us some excellent work and our holiday number will be exceptionally interesting and valuable. Orders should be sent us at once in order to avoid disappointment. The price of the number will be twenty-five cents.

Photographic Reproduction of Speech.—Mr. Esquilla, a Mexican investigator, claims to have made a remarkable discovery. Words are spoken in the highly polished transmitter of the photophone and the vibrating ray of light is reflected on a band of sensitized paper on which it is photographed. By projecting this image upon a selenium receiver by means of the oxyhydrogen light a perfect reproduction of the words spoken in the transmitter is obtained.

The Harvard "Annex" is to have a photographic course.

A Modified Uranium Printing Process.—Another printing process in which ferric oxalate acts as the sensitizer is given by Mr. Bedding in the *British Journal of Photography*. Any good surface paper is coated with a solution of ferric oxalate in the proportion of one grain of the oxalate to each square inch of surface to be coated. Paper so prepared may be kept in good condition for several weeks if protected from the action of light and dampness. If a more durable paper is desired one grain of mercuric chloride should be added to each ounce of oxalate solution. When the ferrous image has been produced under the negative it is developed and fixed by floating on the following solution:

Nitrate of uranium, ...	15 grains.
Chloride of gold, ...	1 grain.
Water, ...	1 ounce.

When the desired depth of deposit has been obtained the print is washed once in plain water, then immersed in dilute hydrochloric acid and finally well washed in water. When dry the color of the image should be a deep bluish-black, which may be varied at will by changing the proportions of the salts in the above bath. A predominance of gold increases the purplish tinge, while an excess of uranium intensifies the cold black which is the characteristic color of the uranium image. The process seems to open up a promising field of experiment and one which some of the photographic societies might well follow out.

Dangerous Compounds.—Particulars are received of a terrible explosion in the laboratory of Wiley & Wallace, Philadelphia, resulting in the instant death of three persons and the injury of several others. Mr. Wiley and several of his assistants were engaged in making the "Violet" flash powder which probably contains picric acid, a dangerous explosive. In some way an explosion occurred and Mr. Wiley and two of his assistants were instantly killed. It was in this same laboratory that a young man was killed a year ago while mixing the same powder. It is well known that magnesium powder, while perfectly safe in careful hands when used alone, forms a most dangerous explosive when mixed with potassic nitrate, bichromate, permanganate, or chlorate, or with picric acid. In view of these well-known facts those firms are criminally guilty who prepare and offer for sale any flash-light compound which contains any of these ingredients. Our readers will best consult their own safety by using only pure magnesium powder or compounds which reputable houses will warrant to be free from all dangerous admixtures.

Ferric Oxalate.—As many of our readers will doubtless wish to try the two iron printing processes described above, and may not be able to procure the ferric oxalate, we give the simple method of making this salt recommended in Pizzighelli & Hubl's "Treatise on the Platinotype": Two hundred grains of perchloride of iron are dissolved in four ounces of water and the solution brought to a boiling point. Hydrate of sodium is added until an alkaline reaction is obtained—about one hundred grains will be required. The precipitate is washed with warm water until it tests neutral, when it is squeezed in a piece of linen cloth to free it from excess of water. The resulting reddish-brown precipitate of ferric hydrate is placed in a flask and one hundred grains of oxalic acid is added and the flask set aside in a dark place for three days. At the end of that time a greenish brown solution of ferric oxalate is obtained, which should be filtered and tested analytically to determine the amount of acid and iron present. The reaction should be decidedly alkaline, if it is not additional crystals of oxalic acid must be added. As the solution is unstable, only sufficient for immediate needs should be made up.

A Pleasant Occasion.—Mr. Edward Bausch, of the firm of Bausch & Lomb, recently returned from a trip to Europe. In honor of the occasion the extensive works of the firm were gayly decorated with flags and bunting. A committee of the employés met the returning tourists at the station and escorted them to the works, where they were greeted by all the employés. An address of welcome was made by Mr. Ernst Schoellner which was briefly responded to by Mr. Bausch. There are evidently no disturbed relations between employers and employés in the firm of Bausch & Lomb.

New Camera Club.—The Dayton (Ohio) Camera Club was organized November 4th, with nine members, and the following list of officers: President, Chas. A. Gump; Vice-President, Albert Kern; Secretary and Treasurer, Jas. A. Mumma.

Wedding Bells.—Just as we go to press we receive the pleasant intelligence of the marriage of Mr. W. I. Lincoln Adams, the general editor of the *Photographic Times*, and Miss Daisy Grace Wilson, of Montclair, N. J. The happy event occurred on Thursday, November 21st. We wish the newly-wedded couple all manner of good and kindly things in their future walk together. We understand now the true inwardness of the *Times'* recent announcement of the store of good things planned for 1890. They are but the overflowings of the editor's happiness.

Toning Silver Prints with Platinum.—Mr. Lyonel Clark, Hon. Librarian of the London Camera Club, recently gave the Club a practical demonstration of his method of toning with platinum. The salt used is the chloro-platinite of potassium used in Willis' platinum process. Of this a stock solution is made up containing two grains to the ounce of water. To make a strong solution which will tone in from two to five minutes, the following formula is recommended:

Stock solution,	1 dram.
Nitric acid,	2 or 3 drops.
Water,	2 ounces.

For slower toning with warmer tones take

Stock solution,	1 dram.
Nitric acid,	2 or 3 drops.
Water,	8 ounces.

The prints are printed rather deeply and after being well washed, they are toned as usual. In the case of the strong bath it is best to float the prints singly on the bath. After being toned the prints are placed in a basin of water rendered alkaline with carbonate of soda or ammonia to neutralize the free acid of the toning bath. The prints are then fixed as usual.

Luminous Transparencies.—Coat a waste plate with Balmain's composition and use it for a cover to a positive on glass.

A New Kodak.—The success of the original has created a demand for a larger instrument on the same lines, and the Eastman Company announce "Kodak No. 2," which will give a negative three and one-half inches in diameter. The No. 2 is fitted with a view finder, focusing arrangement, a new shutter, and a revolving diaphragm plate. The new size will undoubtedly prove as popular as the original.

Chloro-platinate of Potassium.—For the benefit of those of our readers who may wish to experiment with the platinum process, of which we shall have more to say in a future issue, we give here a simple method of making the double salt of potassium and platinum: Seventy-five grains of platinum in scraps are dissolved in aqua regia, and the solution is slowly evaporated to a syrupy consistency. An equal amount of chloride of sodium dissolved in a little distilled water is then added and the whole evaporated by gentle heat until a mass of the salt is obtained, which is dissolved in sufficient distilled water to bring the bulk up to twenty-six drams.

The Prize Tour Competition.—The following is the list of awards in the Prize Tour Competition: First prize, Kodak camera, Mr. E. Whitmore, Putnam, Conn.; second prize, Lilliput camera, Mr. F. A. Muench, Jersey City, N. J.; third prize, Hawkeye camera, Mr. Geo. A. Warder, Springfield, Ohio. Honorable mention: Mr. Edward H. Graves, Orange, N. J.; Mr. F. H. McGirr, Pittsburg, Pa.; Mr. A. W. Robinson, Philadelphia, Pa. The best of the prize winners' pictures will be reproduced in the January number with descriptive letter press. The others will appear at intervals through the year. As a matter of justice to the competitors we give the method adopted by the judges in awarding the prizes. The three best prints in each entry were first selected and the three prize winners were selected from these, and finally the three entitled to diplomas. In judging the entries no attention was paid to the technical excellence of the prints, as that was not a matter for competition. Indeed, the prints of a competitor who did not receive a diploma were technically superior to those of one of the prize winners. Artistic excellence alone was made the basis of judgment, and while there was some difficulty in reaching a final judgment, we believe that our readers will commend the decision when they see the results of the competition.

The Pictures at the Paris Exposition.

From an artistic point of view, the photographic section of the Paris Exhibition was a failure, if absence of attempt is so to be described. There was no endeavor to organize any national or international exhibition of photographs which should in any way show the public what pictures photographers could produce. At the time of visiting the section I had no other end in view than my own information and when I saw the state of things my inspection soon became perfunctory. The show was straggling and out of the way in addition to, being unorganized and incomplete. The heavy fees kept all English amateurs out of the field, and no doubt the same was the case with other nations. There was an album of prints, the results of outings of a Paris Amateur Society, but it certainly was not remarkable except for the fact that some gentlemen seemed to have improved on the average picnic and taken their cameras to circuses and green rooms. As far as great roundness of modeling and glossy silver prints are concerned, the French professionals seem to have adhered to the traditions of Adam Salomon, whose photographs made such a sensation at the Paris Exhibition of 1855, but none of them, apparently, have yet eclipsed their master. Platinotype seems to find no favor, at any rate with the exhibitors. There were a number of instantaneous attitudes of horses shown, but not in series.

The English section took me some time to find, but in a dingy corner were a set of Mr. Sutcliffe's pictures, some of Mr. Hollyer's reproductions, but no original work; some fine portraits from Mr. Thomson, and a frame from Mr. Mendelssohn, including one very good child, I think one of Lady Donoughmore's, shown at Pall Mall last year. Mr. Van der Weyde sent some of his best work, and some of his life-size enlargements of royalties were in evidence, down stairs. The American section disappointed my hasty survey, but some platinotype portraits, low in tone, by Mr. C. G. Cox, were among the best things in the show. The photographic dealers were of course to the fore, and the lens-makers had their show-cases, but I am not making a report on cabinet work or lacquered brass.

Although there were very few photographs with any high aim shown, yet the use of photography throughout the exhibition, to record facts and illustrate places, was remarkable for its extent. Its intention was not artistic nor need it have been, but its evidence of course was unexceptionable. However, as all these business photographs accustom the public to disbelieve in the artistic possibilities of the camera, so far are they against our highest ambition.

GRAHAM BALFOUR, M.A.

The History of the Ferrotype.

BY E. P. GRISWOLD.

[An address before the Society of Amateur Photographers of New York, October 8, 1889.]

I propose this evening to give you a brief history of the ferrotype. I remember in 1852, just about the time the collodion process was discovered, that my father was carrying on a Daguerreotype gallery in the town of Lancaster, Ohio. There was at that time a Mr. Humphrey, who had traveled over the Western States teaching the collodion process, and I remember that we adopted his process and paid him for the privilege of using it. At that time we had to clean our glass and make our positives for the ambrotype, which, as you all remember, was a glass picture backed up with asphaltum varnish, producing the same effect that you see on the ferrotype at the present day.

What led my father at that time to experiment in the direction of the ferrotype plate was competition. There moved into our town a gentleman by the name of Rhoades, and I think it was in the summer of 1852 or 1853. He began, as merchants and everybody else at the present day do, to cut prices. The result was a very lively competition between the car and gallery of the town. This made them finally make pictures on a very small sized plate. They used to call it the sixteenth size. I don't know that you remember, many of you, but it was a very small picture. We put the glass picture in a little case, and these were sold for twenty-five

cents. That, you must recollect, was a pretty cheap picture for 1852. My father determined he would not be beaten by the man who drove the car, so he advertised that he would make pictures on any known substance, whether it was stone, tin, glass, iron, or what-not. After he had spread out those circulars he gave me a big bundle, which I carried and distributed through the country. After he had gotten them all out, it occurred to him that perhaps somebody might come in and want a picture made on leather or tin, and he had better be prepared for it. So he went down to a sign-painter in the village; he happened to have some tin plate that they painted signs on, and my father said to himself: "In making ambrotypes it is necessary to back up the piece of glass with asphaltum varnish; why can't I produce a picture right upon the tin?" He tried it, and the result was of course, almost, if not entirely, a failure. There was a picture on the plate, but it was covered with a fog and a scum. Then he tried on leather, with almost the same effect. Then came the collodion-transfer process. Then he transferred the ambrotype from the glass plate on to the leather, and thus obtained a very beautiful positive on leather. But still he was not satisfied with that, and determined, if possible, to make the varnish sufficiently hard to take the collodion film, and produce a picture.

He made a series of experiments in that direction, using all manner of varnishes that he could find, but was unable to discover any varnish that would stand the heat sufficient to create the hardness necessary for the bath of the ferrotype plate. Then he began to experiment in the direction of varnishes themselves, and the result was that he produced a varnish that was susceptible of very high temperature, sufficient to the degree of hardness desired, and also of great elasticity. In baking these plates he used in the varnish a bromide and an iodide, thus producing a bromo-iodized asphaltum varnish. It was at the time when they baked these plates that they were put in cases, perhaps a foot and a half or two feet long, with wires stretched across to make them parallel; then the plates were varnished in all the sizes in which they were sold, beginning with the ninth size, the sixth size, the one and a half, eight and a half, and eight by ten following. At that time there was nothing larger than the eight by ten, and very few of those. The plates were put in these cases, put into an oven, and subjected to a heat of from 250 to 300° F. When they were taken out it was noticed that the top plates, where the ventilators above had been, had an impression on their surface exactly the shape and form of the hole in the ventilator. The light coming in through the top of the ventilators had produced an exact image of their circuit. He found by experiment that on immersing those plates, covered with the bromo-iodized asphaltum varnish, in bromo-iodized asphaltum varnish, and exposing them in a camera, in a gallery, they produced an image. It was faint, but the image was there.

But with the collodion-film coated on the varnished plate and sensitized in the silver bath, the pictures that were produced were the most beautiful that I have seen from that day to this. My father at once applied for a patent for the production of a varnish for making a picture—for producing a collodion picture. But he found a Professor Smith, of Cincinnati, had been also experimenting about the same time, in a similar direction, and had also applied for a patent. Both were awarded patents, and after a lively fight in the United States Courts both were declared valid; my father's for varnish for the production of a plate for pictures, and Prof. Smith's for a picture on an iron plate. He called his the "Melaneotype," while my father christened his the "Ferrotype," and from that time to the present day the name Ferrotype has clung to that picture and to that plate.

In 1858 my father endeavored to make arrangements with the late Mr. H. T. Anthony, of the firm of Anthony & Co., to manufacture the plate in combination with Mr. Kneff, the representative and owner of Prof. Smith's patent. By thus consolidating the two patents the production of the ferrotype plate could be controlled. But Mr. Kneff was determined to have all or none, and continued his fight until it became apparent that the door was open for the manufacture of the ferrotype by any one who chose to do so. Neither of the two patents, taken separately, covered the entire plate, but if one concern owned the two patents it could have controlled the manufacture of these plates until the present day.

Various parties then undertook the manufacture of the plates, and the trade was very much cut up. This is in brief a synopsis of the discovery of the plate, and its trials and tribulations. The business was carried on for a long time by my father, almost up to the

time of his death, who was succeeded by Mr. Dean, of the firm of John Dean & Co. (now the Phœnix Plate Manufacturing Company), which purchased all the patents and plant that formerly belonged to him.

Perhaps a great many of you would like to make ferrotypes. It is not a difficult thing to do. The principal objection is the use of the silver bath in the house at home. You all know how difficult it is to eradicate the stains of silver, and how prone you all are to drop some of it on the carpet or the oil-cloth, as well as getting it on your fingers; and your wife, or your cousins, or your aunts, don't like it at all if they see stains about. However, if you are enthusiastic enough to try it, proper precautions can be taken to avoid serious stains. The silver bath is made of forty grains of nitrate of silver to one ounce of water in strength. The iodized collodion, rather strongly iodized, perhaps produces the best ferrotype effects, and as for a developer I find almost invariably the best effects are produced when it is made after the following formula, which is one that originated with my old friend Mr. Roche, of Anthony's:

Sulphite of Iron,	4 oz.
Citric Acid,	4 oz.
Water,	64 oz.
Rock Candy,	1 lb.

I have used this developer and have always found it worked admirably. The time of exposure in making ferrotypes is something difficult to explain, as so much depends upon the lens used and the light under which you are operating. If any of you wish to experiment you will find the making of ferrotypes will give you a great deal of pleasure, but you must always bear in mind one thing: In that, as in all photographic manipulations, "cleanliness is next to godliness." If you have derived any satisfaction or any good from my remarks, if they have taught you anything, I shall be more than pleased; and at any time I can aid the officers or members of this society in any way, I trust you will call on me. I shall always feel that I would be glad to comply with any request of yours.

Eikonogen and the Sulphites.

[Abstract of a discussion held at the Meeting of the New York Society of Amateur Photographers, November 12th.]

Speaking of eikonogen, Dr. Arthur H. Elliott said that, having through the kindness of a friend in Europe, received a sample of the new compound, he had given it a thorough test early in the season. Continued use increased his liking for it as a developer, and he did not think that he should care to go back to pyro. Its solubility he thought did not much exceed five per cent. He preferred to use the carbonate of potash accelerator as it gave more density, and greater clearness and detail than carbonate of soda. Mr. Stebbins thought that eikonogen might prove a good developer for wet plates, and stated that a single solution mixed with carbonate of soda had better keeping qualities than when carbonate of potash was used. Mr. Charles Simpson said that he had recently made some tests of the value of the pyro, oxalate, and eikonogen developers in the development of lantern slides. He found that eikonogen developed more rapidly than either of the others, and while there seemed to be little difference in the quality of the slides, on the whole he preferred eikonogen, against which he had but one complaint to make, that it seemed to carry the plate to a certain point and to stop there. At a recent meeting of the Photographic Section of the American Institute, Mr. Newton had made the same complaint and stated that he had found eikonogen of little value except when combined with hydroquinone.

To this Dr. Elliott replied that the addition of a little caustic potash to the developer would enable the operator to carry the plate as far as he wished. Mr. R. L. Bracklow stated that while his experience with eikonogen had been on the whole favorable, he had found more or less difficulty in dissolving it readily in the single solution developer, whereupon Mr. Beach showed a sample of the latest importation, which was in the form of light green crystals, which Mr. Stebbins said was nearer what the compound ought to be. Mr. Beach

continued by saying that one important point in connection with the eikonogen developer had not yet been touched upon, viz., the best proportion of sulphite to be used. He had always adhered to the original formula, which gave two ounces of sulphite to one of eikonogen. The revised formula, however, gives double this quantity of sulphite as necessary. In reply, Mr. Stebbins said that he had always followed the original formula, but he thought that the bi-sulphite would give better results than the sulphite, since it contained a greater amount of sulphurous acid and parted with it more readily, and hence was a better preservative agent. He did not think that there was anything arbitrary about the amount of sulphite to be used. Mr. Beach agreed with Mr. Stebbins, and thought that since eikonogen did not oxidize as rapidly as pyro a less amount of sulphite would suffice.

The President remarked that the question of the relation of sulphite to the reducer was one which had never been satisfactorily settled. His own opinion was that the addition of other substances than the accelerator and the reducer had no beneficial effect, and he was in the habit of using the reducer in the dry state, preferring the use of fresh solutions. In answer to Mr. Beach's question as to the number of plates that could be developed in a solution without a preservative, the President said that it was purely a question of experience and practice. All that he had in mind was the theory of the matter and the relation of the sulphite to the quality of the result. Mr. Beach said that the purpose of the sulphite was to produce negatives free from stain, and of a good printing color. Mr. Murray wished some one would speak a word against the new developer. He thought that the drying racks showed as large a percentage of failures with eikonogen as with any of the other developers.

Dr. Elliott remarked that he had learned something about sulphite from some recent experiments in seeking to determine the density of solutions of the salt in question, for which purpose as pure a specimen of the salt as possible is desirable. Some seven or eight different samples were tested, and found to contain sulphate of soda in quantities ranging from six to seven per cent., and from three to five per cent. of carbonate of soda. The solutions of the salt were found to change greatly within so short a time as twenty-four hours, the stronger the solution the slower the rate of change. A ten per cent. solution of the sulphite will change to sulphate within twenty-four hours, while a saturated solution will remain in good condition for two weeks. Mr. Stebbins said that he had tested a sample for sulphurous acid and found it to contain only twenty per cent. of the acid, when it should have contained about sixty-five per cent. He had found Cooper's sulphites the best. After other remarks of the same nature by other gentlemen, the President closed the discussion by saying that he thought the two ends of the introduction of sulphite, viz., the preservation of the developer. and the imparting of a better color to the negative, could be obtained in other and better ways.

CORRESPONDENCE.

BOSTON LETTER.

The Boston Club has at last dispatched the much-debated constitution, and it now only remains to have it printed and distributed among the members. There has very little transpired in the way of news during the past month, although all the amateurs seem to be hard at work. I am told that the demand for cameras to serve as Christmas presents is already started and promises to be something extraordinary. The daily papers and magazines have agitated the subject of photography to such an extent that every boy and girl thinks that life after next Christmas without a photographic outfit will be unbearable.

Of the new Brookline Club it can be said that it has started out quite prosperously. As the first meeting, held at the house of Mr. H. A. Hallett on the 14th, there were eighteen who signed the constitution, and at least twelve more have applied for membership. A desirable room has already been selected. The club starts right in one respect—in that it admits ladies, three of whom signed the constitution at that meeting—Misses Helen Richards and May Belle Armstrong, and Mrs. Stone, all of whom are excellent amateurs. According to the constitution the ladies are to have quite a representation in the executive of the club.

Boston, according to the *Transcript*, has a ladies' camera club; and if such is the case, would it not be a good idea to have an occasional meeting in which the two clubs might join? Who are some of these fair Bostonian photographers? In the first place the name of Miss Alice M. Longfellow, the daughter of the late poet, will attract attention, then the name of Miss Horsford, daughter of the celebrated chemical Professor of Harvard, will be recognized by many in all parts of the country, for she has hosts of friends. Miss Delia Stickney, teacher of Chemistry in the Cambridge High School, has given to the work a depth of scientific research almost unequalled. Miss Alice Stone Blackwell, that champion of woman's rights, and Mrs. Isabelle Barrows, of the *Christian Register*, whose accomplishments are many, are lovers of the art. I remember of Mrs. Barrows, that during the visit of Père Hyacinthe Loyson in this city, she reported him short-hand in English, translating as she wrote—a most difficult feat. Miss Rose Hollingsworth, of Mattapan, has attained quite a reputation as a mountaineer as well as a photographer. At one time she walked along the narrow knife-edged path of the peak Pomola, where a single misstep meant death, and secured pictures never before attempted even by the professional. Mrs. Titus of Squantum and Mrs. Davis of Newton are also well known as successful votaries of the dry plate. Of Miss Annie J. Richards but little need be said, as her work is known to every amateur as the best produced by feminine hand. It was a picture of the poetess Celia Thaxter, taken at the Isles of Shoals last summer, the sale of which has netted a handsome sum for a local charity. Misses Bertha Thomas, Mollie Williams, Alice Richards, M. L. Goddard, and Edith Hill are also well known to Brookline friends as successful amateurs.

Speaking of ladies reminds me of a curious photograph of some young ladies shown me the other day by a prominent amateur. With a party he was summering in a little New Brunswick town. It seems that four of the young ladies were obliged to occupy one tremendous bed together. Early in the morning, while three were yet asleep, one of them stole out and importuned our young amateur to bring his camera, while she returned to her downy couch. Result, a photograph of four young ladies' heads reclining on pillows, with bed-clothes snugly tucked up under their dimpled chins; three utterly unconscious; one evidently posing for effect, her carefully-braided cue being artistically coiled around the pillow, while the tresses of the other three are straggling in a *negligé*, although artistic disorder. I doubt if such a study can be duplicated in the city.

I met Captain Humphrey, a former naval officer, and now of the Boston Towboat Company, the other day. He carried a Kodak, and explained the fact by stating that he intended sending out one of these instruments with a wrecking crew, as there was often complaint among their customers regarding charges. A series of snap shots would demonstrate the difficulties attendant on their work, and might save its cost many times.

Mr. J. C. Freeman, a prominent real estate man, has recently taken up the art; and what led to it is probably a cause analogous to which has started many on the same path. It seems that some time ago he purchased an Eclipse outfit, and in a leisure moment photographed his baby, who later died, and this is the only picture he has by which to remember the lost child.

GREENOUGH.

OUR ENGLISH LETTER.

I thought I should be unable to send you a December letter, but the Fates disposed otherwise, and instead of being at the present moment tossing on the Bay of Biscay I am comfortably seated at home, having been shipwrecked last Tuesday night on the Cornish coast. We escaped with our lives, but all our luggage went to the bottom, including my new Beck hand camera and a fine supply of Edwards plates. In the middle of the confusion, after the steamer struck upon a rock, an old clergyman came to me and begged me in a faint voice to get him a life-belt and fasten it on to him. This I did, noticing that the trembling old man clutched tightly to his side a neat leather case. Gold suggested itself to me as the probable contents of the bag, and leaving the old man, to help bear a hand in getting the ladies into the boats, I forgot all about the matter until the following morning, when we were waiting in the smoking-room of the village inn to see if any of our baggage would come ashore. Then the old parson recognized me and thanked me for my help, and

on the mantel-piece I noticed the bag. The poor old fellow, now grown brave that all danger was over, began to talk of how he had stuck to his bag and carried it safely all the way up the perilous cliff paths in the dark. "Was it valuable, then?" I suggested. "No, not intrinsically," said the old man, "but I value it, as it was a parting gift from my lady friends, upon giving up my incumbency. I will show you," said he, and he opened the bag and to my surprise pulled out a quarter-plate Lancaster camera and lens. That was all he had saved. My friend, J. Howard Thomas, the sculptor, was on board with me, and he, too, lost his photographic kit and a large supply of plates and chemicals. Had there been less work for us to do I should have tried an exposure or two as the blue lights were being burnt; but we had to do the crew's work, for they were a "scratch lot" and panic-stricken, one deserting and one becoming mutinous. However, we shall try again next week to get to Naples by the next boat.

The winter session opened at the Camera Club with an interesting discussion upon hand cameras, in which, however, no definite conclusions were arrived at, as is, alas! too often the case in these meetings. One thing is certain, for artistic work every hand camera should have a long-focus lens, seven inches being a good length, this being the length of focus of Beck's lens. The majority of cameras are far too cumbersome. The perfect hand camera has yet to be made, and I do not think it would be a difficult job, if manufacturers really understood what is wanted.

I wrote you in my last anent some of Mr. Dallmeyer's remarks on the "False Rendering of Photographic Images." As this is a vital point just now, I enclose my letter and Mr. Dallmeyer's answer as they appeared in *Photography*. I shall not at present say anything more upon the matter, but upon my return from Italy we shall fully thresh this subject out and arrive at definite results. I append the two letters:

"On the False Rendering of Photographic Images, &c."

There are one or two vital points in Mr. Dallmeyer's recent paper on the subject quoted in the title that call for comment. Firstly, most of the paper confirms the teachings laid down in *Naturalistic Photography*, but there are one or two statements opposed to those teachings which are, I venture to think, wrong. If such be the case I know full well that such an able and thorough scientific man as Mr. Dallmeyer will withdraw them; for 'tis the vain and ignorant man who never owns to a mistake. Mr. Dallmeyer says: "Putting a lens entirely out of focus must necessarily destroy structure, but the introduction of spherical aberration in many instances may still maintain the structure of the image but produce a softer effect. I think that this is *the only legitimate form of aberration* to soften images, although I maintain, at the same time, that a perfectly well-defined or sharp picture is not of itself at variance with softness, due to conditions of atmosphere and lighting, the latter remark being, I think, particularly applicable to studies of landscape without prominent figure." (Italics mine.) Mr. Dallmeyer will pardon me if I say the first sentence seems a truism, but if focus is entirely destroyed there is no form, no texture, no tone, *ergo* nothing. But the chief words to which I take exception are the following: "I think that this is the only legitimate form of aberration to soften images." This statement implies that the only legitimate "softness" is the "soft sharpness" obtainable by spherical aberration introduced in the structure of the lens, or by unscrewing the back. This is a view that several opponents of *naturalistic photography* have taken, endeavoring under the cloud of "soft sharpness" to shift their ground from "sharpness," and so enter the temple of *naturalism* without appearing to yield. But we will have none of them. This is the vital point. What I maintain is that the principal object must be only just sharp, and the rest of the picture must, as a rule, be only suggested. The effect I desire and consider necessary cannot be obtained without throwing the image out of the sharpest focus by racking out the camera, and by the judicious use of diaphragms. *No lens yet made* will give the focus I consider necessary without resorting to these devices, and if Mr. Dallmeyer will do me the honor of going to the British Museum reading-room, and turning to Plates II., V., XII., XVIII., XXVII., XXX., and XXI. of my recent work, "Pictures of East Anglian Life," he will, I think, at once allow that no lens yet made will give the focal effects I have obtained in these plates by throwing the plate slightly out of focus, and employing dia-

phragms judiciously. In many of these cases aerial perspective does not affect the matter, notably in Plate XXX. At present I think that this is the only way of obtaining artistic focus, and this is diametrically opposed to Mr. Dallmeyer's statement. It will be noted there is no destruction of structure or diffusion halos in the out-of-focus planes of the plates cited. But though there is no lens yet made, I think this want will be satisfied shortly. Secondly, I maintain that a perfectly sharply defined landscape can hardly ever be really artistic, for the eye does *not* re-arrange its foci *instantaneously*, although many superficial and designing writers have maintained this in recent controversies on the subject. Instantaneously is here used as loosely as it is in photographic circles. I am sure that a really scientific man like Mr. Dallmeyer will agree with me that the eye when moving from object to object before it, *if it really looks at them*, *i.e.*, focuses them on on the central spots, takes an appreciable time to re-arrange its focus from plane to plane. I have not measured this time scientifically (for lack of an instrument), but I find, after a careful analysis of the sensation, that by rough experiment I can count nearly three in re-arranging my focus, and when one understands the physiology of the matter, this space of time does not seem too long. I am aware that some great authorities have said that the focus alters instantaneously, but experience proves that in this little matter the authorities are either wrong or loose in the use of the term. And in artistic vision, *i.e.*, when things are looked at in pictorial combinations, this delay in the re-arrangement of focus is still more appreciable. It is hard to see why Mr. Dallmeyer's remarks apply more to landscapes than to figures or portraits. If a landscape is artistically treated, the same principle holds through all three; it is merely a matter of relative complexity and relative number of planes. Finally, I was the first to discuss the question of tone in connection with lenses, and to state that some lenses gave truer relative values than others; but I was not prepared, nor am I yet, to say definitely on what this depended. Equality of illumination is but one factor, and that not the most important, for in some single lenses, when the illumination is equal, the values are as falsely rendered as can well be. Apologizing for the length of my note.

P. H. EMERSON.

False Rendering of Photographic Images by the Misapplication of Lenses.

I understand Dr. Emerson's objection to my statement in a paper read before the Photographic Convention. Dr. Emerson *proves his case for himself* by reference to real works of art in photography, and informs me and your readers generally that the results are not obtained by lenses in which positive spherical aberration is outstanding, but by wheeling a perfectly corrected lens (for chromatic as well as spherical aberration) out of its best focus, that is, sharp focus. I have said that Dr. Emerson has proved his case for himself intentionally, in that he has judiciously employed the instruments at his disposal, and so produced the results he has referred me to. I do not intend to pose as an art critic in the matter, but the task I have to fulfill is to explain what I intended, on scientific grounds, to convey in my statement, and how far I am wrong from an artistic standpoint.

To explain, I start with the following statements:

(1.) *Equal and perfect sharpness* throughout all planes from foreground to extreme distance is the theoretical desideratum for a mathematically perfect lens.

(2.) *Pinhole effect*, as ordinarily known, is soft sharpness throughout all planes, with no distinctive difference between foreground and extreme distance in point of definition.

(3.) In *naturalistic photography* the primary principle is contrast in definition of different planes, the chief feature of the picture being favored by the best definition, that definition not being necessarily sharp.

The first effect is an impossibility except with an imaginary pinhole, the section of a mathematical straight line. It is most nearly approached by using lenses of such a ratio of aperture to focus, and focus itself, that there is no distinguishable difference in the definition for all planes included in the subject.

No. 2 can be very approximately imitated by using a lens under similar conditions to those in No. 1, but in which there is a certain amount of positive spherical aberration outstanding, thereby softening the whole of the subject.

No. 3 can be produced by two different processes, but in both the positions of the conjugate points in the image, corresponding to foreground and distance in the object, are sufficiently wide apart to make themselves distinctly felt in point of contrast of definition. To soften the main object of interest two methods are open. One by the introduction of positive spherical aberration, the other as practiced by Dr. Emerson in the plates referred to by wheeling *out* the camera back. The former process tends to concentrate the central (or image forming) rays beyond the least circle of aberration, corresponding to objects more distant than that focused for; and hence it is that for large heads or subjects in which depth of focus is required in portrait lenses, that this form of softening has produced better results, by maintaining structure with softness, than the contrast of fine definition in one plane, and the contrast in out of focus in another in a single figure, as is the case when employing a lens under conditions perfectly corrected for spherical aberration. For example, in the latter case, in photographing a large head, contrast between entirely in focus in near planes and out of focus for the near background, the eye would be naturally led to the point of best focus, and a general softness could not be obtained. Again, if the lens were wheeled out of focus for such a subject as Dr. Emerson has employed it, points in the foreground will give a circle of indistinctness corresponding to the nearer planes, and larger circles of out of focus effect for the more distant planes, and I maintain, *in portraiture*, the inward concentration produced by the introduction of spherical aberration has a general softening effect to be preferred in such a case where the object is sufficiently near to cause comparatively wide limits in the conjugate points of the fore and backgrounds in *one single object of interest* (say a single head or figure).

Referring to the principle of Dr. Emerson's method as shown in his works, he has chosen his subjects in so skilled a manner, and judiciously employed the out-of-focus effect, that the softening so produced upon the main object focused for is not too great to be unpleasing nor unnatural, and this is favored by him with the *least* out-of-focus effect, and planes more distant are less and less well defined in comparison to this; but the conjugate point corresponding to this feature of chief interest, and the conjugates corresponding to the *most out-of-focus* plane, or extreme distance, is such that a pictorial consistency is maintained.

With lenses as at present constructed, I still say that, although Dr. Emerson has undoubtedly succeeded, his method is dangerous to be practiced by the uninitiated, in that the least out-of-focus effect of itself may be *badly judged*, and the *distance* of the object so focused for may be badly judged. The subject, as a whole, may suffer by improper contrasts in these out-of-focus planes. One point particularly that will be evident is, that should any plane intervene between the lens and point of chief interest, when that is slightly out of focus, such objects will be *better defined* than that which it is *intended* should be of most interest, and the eye when viewing the picture probably will be led to dwell on the finer definition, which may be of small interest compared to the chief feature of the picture, and so destroy its merit artistically. In conclusion Dr. Emerson has said that no lens yet made has produced such effects as he, by mechanical means, has shown us. It is pleasing to know that Dr. Emerson has never been unfortunate enough to employ lenses which, from a mathematical and optical point of view, would be unallowable, but his problem as it at present stands is a simple one. It merely means that the lens should be what is commonly termed non-actinic, or, in other words, if the main object is focused for on the screen sharply, this, in the chemical image, will not appear sharp, but objects nearer to would appear sharp if visible, the object itself being somewhat out of focus, and planes farther off more and more so. Dr. Emerson, in his earnest efforts to raise photography to a high standing in art, has called upon the optician to produce an instrument which he otherwise would never have constructed, and which will enable those who *would* do so to produce such artistic results without the practical experience of a master of the art in all its branches such as Dr. Emerson.

THOS. R. DALLMEYER.

Mr. H. P. Robinson has issued a second edition of his "Picture Making and Photography," to which he has added two chapters on "Naturalistic Photography" and "Instantaneous Photography." I take leave here to warn your readers against his teachings. Everything worth considering that he has written will be found elsewhere, especially in

Burnet and Harding, and I have looked in vain for a single original idea in his books, but I find several grammatical errors, false teachings, and stupid doctrines. The book is not worth criticising in a serious spirit, and the chapter on "Naturalistic Photography" is an unscrupulous or ignorant attack upon a subject the writer is perfectly incapable of understanding. So unscrupulous are some of its statements that I had to threaten him with an action for libel, which extorted a full apology for the greatest untruth in the chapter and stopped the circulation of the book until this passage was erased. So egotistical and vain does that writer appear to be, that all considerations for truth or the real advancement of photography are cast aside and ignored in his search for self-exaltation. I repeat most seriously and earnestly that students will do well to avoid his spurious teachings and examples in art (?) photography. The chapter on "Instantaneous Photography" contains what Captain Abney and I have advocated for some time, bolstered up by scientific (?) props for a "cram-book" on Physics. The writer knows *no* science, and to take a person whose ability (artistic and otherwise) I honestly consider beneath contempt, *au serieux* here, would be ridiculous.

There is a great desire here to learn photo-etching. I have advocated this from the beginning, and have lately learned the process thoroughly myself and shall in future etch my own plates. This, as I pointed out years ago, is the *only* satisfactory way of publishing photographs. For if the plates be given to a reproducer, the etcher (or photo-engraver, as some call him), will either be an artist or a mechanician. If he be an artist he will have certain *nuances* of preference for certain tones, and so his personality enters into the reproduced work. If he be a mechanician, the probability will be that all his efforts will be directed to obtaining what is falsely called technical excellence, but what is really topographical accuracy, and so the original photograph may be ruined.

Mr. W. T. Wilkinson promises a series of articles on the subject in *Photography*, and several eminent amateurs are going to try and master the process for themselves this winter. *Floréant!*

Yours Faithfully,

P. H. EMERSON, B.A., M.B. (Cantab).

To the Editors of the American Amateur Photographer:

In your excellent issue for November I note with interest Mr. John E. Dumont's article on his experience with flexible films, and what I consider his hasty condemnation of them. I can understand perfectly his feelings at the result of his trip abroad, but dare to conjecture that he didn't try any before he started, and that he got an inferior make to begin with. I used up four dozen Carbutt films (6½ x 8½) in camp at Rangeley Lakes during September, and they worked to perfection. There was not a blemish of any sort on them, and I would not discard them for touring for anything. I had the usual quota of failures, but the films were there in perfection, and others that have used them speak in the highest praise of them.

I have used this brand of plates and films for a long time with the best of results, and the makers are most courteous and obliging in explaining any difficulties that may arise in the manipulation of their products. I recently saw several hundred 4 x 5 films that were exposed in Italy and other countries, that had the same defect that Mr. Dumont's had. I jotted down the make and will look out for them. I don't guarantee that my favorites will always be free from those "spots," but I have yet to find any on them.

Any reliable house catering to the interests of the growing numbers of amateurs should reply to their requests, and make such restitution as possible, when the fault is wholly on their side. Mr. Dumont's dealer or manufacturers not doing so, leads me to doubt their reliability. Mr. Dumont should get the best, and patronize only the oldest and most enterprising and reliable houses. I don't wish to be too presuming to one of our faith of his standing in the ranks, but thought my experience might do some one some good. I might add that Carbutt's Developer for these gave me the nicest gradationed *gray* negative, so much appreciated by some.

Very Respectfully, C. EUGENE ROBINSON.

Providence, R. I., November 10, 1889.

To the Editors of the American Amateur Photographer:

I would like to tell any amateur photographer, who may be interested, how I made my dark-room, especially those who can not afford to have one built of wood. My first dark-room was in the attic. This was too warm, and it was a great deal of trouble to carry water there. My next one was in the cellar, where there was plenty of water at hand, although it was not in the dark-room. I obtained some strips of wood, one inch square, long enough to reach from the rafters to the floor. With these I made a skeleton frame-work which I covered with heavy sheathing paper. I think it is called "rosin sized," and is of a red color. It can be found at any dealers in building materials. I blocked up all the holes between the rafters, except one narrow one which I left for ventilation. About four feet on each side of the paper partition I tacked paper *across* the rafters so that it left a long passage through which very little light would come. The door should be as narrow as convenient. In making mine I left an opening on one side, about six feet high and eighteen inches wide which I closed with a flap of canvas. This entered into a small passage, about two feet long, eighteen inches wide, and six feet high, in one side of which was an opening the same size as the first, and closed in the same manner.

Of course the amateur can fit up the room to suit himself. I would like to correspond with any amateur who would care to write to one who has had no more experience than I, for I have only had my camera since January, 1889. Now I should like to make a suggestion: Would it not be a good idea to start a Postal Album Club among the subscribers of the AMERICAN AMATEUR PHOTOGRAPHER? At any rate think about it, and then let us have your thoughts in print. And I should like to ask if any one can describe the operation of taking a composite portrait?

Holyoke, Mass. JAMES R. SEYMOUR.

To the Editors of the American Amateur Photographer:

In an early issue you advocated the formation of a "League of American Amateur Photographers," and called for an expression of opinion from your readers. I am of the opinion that if the amateur clubs of this country would unite in forming a "League of American Amateur Photographic Societies," much good would come of such association. Among the advantages I think of the following:

They would be able to induce proprietors of the principal hotels to furnish accommodations for amateurs.

They could successfully arrange for annual comparison of the best work of the different clubs. (All due respect to the exhibitions of the larger clubs now annually held.)

They could furnish membership cards, that, on being filled out and signed by an officer of a club, would, on presentation to an officer of another club, insure a cordial welcome at the rooms, and the member presenting same would not feel that he was intruding.

They could arrange rules to govern all competitions and give a great impetus to lantern-slide making.

Why wouldn't the formation of such a league be a good winter's work for some of the larger clubs? I think the smaller clubs would quickly fall in line. Hoping to hear more from this matter, I remain

"A SUBSCRIBER."

To the Editors of the American Amateur Photographer:

In my letter, which you published in the November number, I feel that I have done the Eastman Dry Plate Company an injustice, and therefore feel that I am in duty bound to say that the films which I used were not made by them, and at the time my letter was written, I had not tried their new celluloid films, but I have since done so and find that they have none of the defects which I found in the flexible films which I used on my trip abroad. The article which you published has brought me in a number of letters of condolence from others who have had similar experiences to that which I had.

Rochester, December 2, 1889. Yours Very Truly, JOHN E. DUMONT.

SOCIETY NEWS.

[Under this head we propose to publish all society matters of scientific or technical value, which are of interest to amateurs generally. Our space will not allow the insertion of mere routine matters. Reports of Field-Days, Exhibitions, etc., will be gladly received and inserted, if received previous to the 20th of each month. Secretaries will confer a favor by forwarding early reports of meetings.]

SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

Lantern Slide Exhibition.—Voigtländer Lenses.—Photography in California.—The Anschuetz Camera.—Discussion on Developers.

On the 25th of October a very enjoyable lantern-slide exhibition was given, representing the work of a number of members. Miss Catherine Weed Barnes sent a few slides made from her new portrait negatives, which were very soft and clear. Mrs. A. F. Arnold contributed several interesting views of Florida scenery and animals. Excellent slides were those by Mr. C. C. Roumage of the "Floaters," and "Pocantico Creek." Other exhibitors were Mr. Wm. M. Murray, Mr. E. B. Gallaher, Mr. F. Vilmar, Mr. Young, Mr. Robert A. B. Dayton, Mr. Ferdinand Ruppert, Miss Elizabeth Slade, Mr. F. C. Beach, and Mr. J. Wells Champney. The hall was comfortably full. President Canfield announced the titles, Messrs. Beach and Gallaher operating the lantern.

The informal exhibition of prints, to have been opened November 7th, was postponed until the evening of the 12th, which was the regular monthly meeting night of the society. It is not a very large exhibiton, but is of good quality. A brief account will appear on another page.

President Canfield presided at the meeting of November 12th, and opened it by introducing Mr. Wilfred A. French, of Boston, who read a paper on a few "Experimental Tests with a New English Lens." (See page 229.) His experiments had evidently been carefully conducted. The results shown in the negatives and prints exhibited were quite interesting and seemed to bear out the statements expressed in his paper. He was prompted to make the tests by reading of the experiments carried on last summer by Mr. Beach and Dr. J. L. Williams, with similar lenses. He exhibited also lenses made of the new glass by Voigtländer, and also a new form of Darlot lens, having the diaphragms on a disc instead of being separate. The tube was neatly covered with black leather. Specimen photographs made with the new Voigtländer lenses were shown. Mr. French's paper was greatly appreciated; at its close he was thanked by the President.

Dr. John H. Janeway was then introduced. After congratulating the society on the beautiful appearance of their rooms since they had been re-fitted, he talked of "Photography on the Pacific Coast," saying, among other things, that the atmosphere in that locality for about four months in the year was the most perfect for photographing of any part of the country; the rest of the time rain and wind were the chief obstacles. Dust was prevalent everywhere, and made one look as if he was covered with rye flour. The Pacific Coast Amateur Society did some good work, equal, he thought, to that of many of our English brothers. Mr. Treat, he said, had done some excellent work on Japanese artist paper. The Pacific Society was growing rapidly, though he thought it was rather hide-bound in regard to the admission of new members. Ladies have been refused admittance as members, but the last he had heard a movement was on foot to admit them.

The President remarked that some of the finest prints he saw in the exhibition of the Photographic Society of Great Britain, in London, were made by the platinotype process on a peculiar rough, unsalted drawing-paper. He hoped the members would try it for the exhibition next spring. A bust of Daguerre, presented to the society by the Photographic Society of France, had arrived in slightly damaged condition. He believed it was the only bust of Daguerre in this country. The privileges of the society had been extended to Mr. S. W. Burnham, the amateur photographer and astronomer, so well known in his connection with the work of the Lick Observatory.

Mr. Vilmar explained a new attachment to a Prosch shutter, which he used in his detective camera made by Mr. John Stock, that enabled him to automatically shut off the lens while he set the shutter, thus doing away with the need of shielding the sensitive plate with a slide every time the shutter is set. It was a very simple device, yet extremely effective, and did not interfere with the time movements when it was desired to employ them.

The United States Photographic Supply Company (formerly C. B. Richards & Co.), through its representative, Mr. Walsh, exhibited the new Anschuetz continuous curtain shutter as arranged in the Anschuetz Detective Camera. A spring roller, placed in the top of the camera, when let off by a trigger operates the shutter, causing the horizontal aperture in it, about one-half inch wide, to traverse from the bottom to the top, directly in front of the plate, so that all parts of the plate are equally exposed. The size of the slit in the shutter may be varied. The French Berthiot lenses fitted to the camera have a rack and pinion movement for focusing, and are provided with graduated iris diaphragms. On top of the camera is a hinged thin sheet-metal frame, made proportionate to the size of the plate; when turned upward it is sighted with a sight on the rear of the top of the camera, enabling the operator, by sighting like a gun, to tell when the object is in or out of the field of view. A neat tripod with a well finished ball-and-socket joint at its top, secured by a simple clamp, permits the camera to be easily tilted in any direction without moving the tripod legs. The Eastman Roll Holder may also be fitted to the camera.

Mr. David Williams described a novel detective camera he saw in Antwerp, Belgium, which had a mirror fixed at an angle of forty-five degrees, and made the objects appear in their natural position on the ground glass. At the instant of exposure the shutter caused the mirror to fly upward. Mr. Stebbins, Mr. Vilmar, and President Canfield, all thought it was either the Smith or Clark camera shown before the society some time ago, imported into Belgium, that Mr. Williams had seen.

Mr. A. Peebles Smith spoke of a new method of making two or more portraits of the same person on one plate, without showing any division mark, which Professor Cromwell had invented. He had himself also invented a way of doing it which he might explain at some future time. Since the last meeting of the society he had accidentally broken his hydrometer, and was now prepared to give a formula for the eikodeveloper, which all could understand, and which worked well in his hands (based on 437 grains to the ounce).

A.

Hot distilled, or rain water (Croton),	16 ounces.
Sulphite soda (crystals),	3 ounces.
Eikonogen (new kind in crystals),	1 ounce.
Glycerine,	2 drams.
Alcohol,	2 drams.

B.

Carbonate of soda (granular),	6 drams.
Carbonate of potash (granular),	6 drams.
Phosphate of soda,	2 drams.
Bromide of Potassium,	10 grains.
Water,	12 ounces.

To develop—take equal parts of A and B, sufficient to cover the plate. Add more restrainer in case it is too rapid.

Mr. Walsh stated that the United States Photo-Supply Company had recently imported over five hundred pounds of the new eikonogen, in crystals resembling in color sulphate of iron crystals, only somewhat lighter. It was put up in glass bottles instead of in tin cans. Mr. Beach exhibited samples of the crystals. Mr. Stebbins thought it was more like what it should be. Both Mr. Smith and Mr. Stebbins stated they had used "eiko" very successfully in developing bromide paper. There was no precipitating of the iron on the paper, and no acid clearing bath necessary before fixing. An interesting discussion then ensued, which we give on another page, on the "Relation of the Sulphites to Eikonogen."

Following the scientinc business of the evening was the presentation of the report of the nominating committee appointed at the previous meeting, to nominate candidates to fill the

vacancies caused by the resignations of the Secretary and other Directors. On motion, the report of the committee was accepted. The persons named were then elected by the Treasurer, J. E. Plympton, casting one ballot. They were F. C. Beach, Secretary; Frederick Vilmar, Robert L. Bracklow, Ernest Warrin, and Otto Hesse. Two hundred dollars was appropriated from the special fund for improvements. Mr. Wilfred A. French then made two flash-light exposures on Cramer 40, 5 x 8 plates, of the audience, using the new Voigtländer lens. The meeting then adjourned.

On Friday evening, November 22d, a lantern-slide exhibition was given, comprising slides illustrative of the Dells of Wisconsin and Winnebago Indians, sent by the Chicago Lantern-Slide Club. All were the work of one member and were by the wet-plate process. The slides were of good quality and varied in interest. One picture in particular was interesting from the fact that it was of "Yellow Thunder," an Indian chief said to be one hundred and twenty years old. Over seventy slides, contributed by the Syracuse Camera Club, followed, and were greatly enjoyed. They included novel pictures of balloons and parachutes, interesting landscapes around Skaneateles Lake, some excellent animal and figure compositions, beautiful snow pictures, and interesting foreign scenery. The work of this new club was very creditable; it will be a decided acquisition to the Interchange. The exhibition concluded with a few slides of members, some of the best being the work of D. K. Young, Wm. M. Murray, and C. C. Roumage. F. C. Beach and F. Vilmar operated the lantern, which was placed in the center of the hall, throwing the pictures on a special screen at the rear end, so that they might be seen by reflected, instead of transmitted light as heretofore. The effect seemed to be more pleasing. J. Wells Champney kindly announced the titles of the pictures. At the close of the exhibition many lingered to view the prints in the informal exhibition of photos hung on the wall.

NEW YORK AMATEUR SOCIETY'S INFORMAL EXHIBITION OF PRINTS.

The exhibition opened on November 12th and it is expected will be continued during a portion of the month of December. A hasty glance at the exhibits shows that twenty-four members responded to the call for an exhibition, some sending very good and interesting specimens. James H. Stebbins, Jr., had eight 8x10 bromide enlargements from his small Tom Thumb negatives that were very good, especially his landscapes. All were developed with "eiko." Robert T. B. Dayton contributed three 10x10 bromide enlargements from 4x5 negatives of good quality. His snow roadside view in the woods was particularly pleasing. Charles I. Berg sent one frame of nine 5x8 views about Rye, N. Y. A few garden scenes and views in a corn field were quite attractive. Mr. G. D. Milburn's two frames contained twenty-seven 6½x8½ prints, made from the new Eastman transparent film, which were fine specimens. His views of the Brooklyn Navy Yard were particularly good, others were of views in Washington and Block Island. One standing portrait of a little girl by F. Vilmar was evenly lighted and rather pretty, though we think the retouching on the face had been overdone. Miss Elizabeth Slade sent seven frames of 6½x8½ photographs, mostly blue prints, from a few of her last summer negatives. There were some effective haying scenes, loading of hay, though they appeared to be a trifle under-developed. "A Rhode Island Doorway" was one of her best, in distinctness and general composition. The figure, however, seemed a little stiff. Among the four frames of E. F. Hill's 4x5 landscapes, that "Along the Lane" was very pretty and well rendered. Miss Catherine Weed Barnes had eleven frames, six of which contained examples of her recent portrait work. They were mostly portraits of ladies and were excellently done; one entitled "A Spanish Study" being especially clear, crisp, and full of beautiful detail. Her other views were of garden scenes very prettily arranged. Ernest Warrin contributed one frame of six 5x8 views about Bermuda that were of fine quality. "Palm Trees in Bermuda" was one that we especially admired. H. M. Grisdale displayed some beautiful landscape and water studies in his large frame holding twenty-five views. One a study of roadside bushes was quite effective. H. T. Duffield sent six frames, mostly bromide prints from several of his negatives. A 5x8, entitled "A Cold Breakfast" was of a very fine group of turkeys. Another, "Brook Study in the Catskill Mountains," was particularly good and picturesque. David Williams contributed twelve frames of 6½x8½, excellent foreign views taken last summer. Cornelius

Van Brunt had one frame holding nine 5x7 views printed on the new Bradfish Aristo paper. They were beautifully done, the one called "Outlet of Balsam Lake" took our fancy as being the best. In one frame of three 5x8's sent by J. Wells Champney, the picture entitled "Old Pine Tree" was a remarkable study, full of detail but soft and pleasant to look at. R. L. Bracklow had an assortment of nineteen 5x8 views. "Thorn Mountain," N. H., an excellent distant view, and "After a Fire," were the most attractive and picturesque of his exhibit. Mr. Wilmerding of the Obrig Camera Company contributed three frames, one of which included an assortment of views made by the Tom Thumb camera. Bromide enlargements from a few filled the other frames. Miss Granger had one frame holding nine 4x5 pictures of various kinds. Her photographs of United States paper currency were remarkably distinct and clear. "Glimpses of the Centennial Parade" was the title of Ferdinand Ruppert's exhibit, displayed in one frame of about twelve photographs. His work is very carefully done; the frame forms a beautiful historical souvenir of the celebration. C. D. Irwin, a corresponding member from Chicago, sends four frames of 11x14 enlargements which include excellent portrait work. One of "Lovers in a Lane" was particularly pleasing. Miss Sally M. Cory sent three pictures in one frame; the one entitled "A Knotty Point" being a flash-light of an old couple playing chess, was the best, though the details in the blacks were somewhat deficient. Paul Sala had one frame of six 5x7 views, mostly landscapes. A road scene along a mountain side inclosed with bushes and low trees, was very pretty.

It is probable that a very much larger display will be given at the joint exhibition to be held here next spring. The exhibition is supposed to number five hundred prints. Mr. H. T. Duffield had the most to do in supervising it and to him belongs the credit for getting so many members, at this time of the year, to exhibit. F. C. B.

CHICAGO CAMERA CLUB.

The regular monthly meeting of the Chicago Camera Club was held at the club rooms, No. 182, Wabash Avenue, Thursday evening, November 14th, President Williston in the chair. The attendance was large. After the transaction of some regular business, the secretary called the attention of the members to two new view cameras recently purchased, a 6½ x 8½ "St. Louis" camera, with Dallmeyer R. R. lens and Prosch shutter, and a 4¼ x 6½ Universal camera, with Bausch & Lomb lens and shutter. These have been purchased for the use of members of the club, and may be taken from the club rooms for not exceeding twenty-four hours, without charge. Attention was also called to several new pictures adorning the walls, including Rösch's "Evangeline," which captured the first prize at the Boston convention. Also a large album containing about one hundred cabinet photographs of celebrities, by leading artists, which the members might use as examples in lighting and posing. The chair then announced that the club had imported specimens (probably the first in America) of the new developing agents, pyrocatechin and para-phenylendiamin. Samples had been given to various members to experiment with, and reports were asked for from Professors Garrison and Bartlett, Dr. Nicol, and Messrs. Morrill and Harley. While it is unnecessary to give the reports in detail, we will try and mention the principal points.

Pyrocatechin is a feathery substance of light straw color, and with a strong odor of carbonic acid. It dissolves readily in water, and is said to be fifteen times the strength of hydroquinone (which we doubt, though the writer developed successfully a 6½ x 8½ plate in a solution containing only one grain of pyrocatechine). The normal developer (made with carbonate of potash) works a trifle slower than a normal pyrogallol developer, and gives less density, but produces negatives of crystal clearness in the shadows, and of fine printing quality. A transparency was sbown, which had lain for *two hours* in an old solution (being under-exposed), and had resulted in a perfect picture, and without a stain. The foreign formulas state that pyrocatechin solution can only be used once, but Dr. Nicol had disproved this by developing twelve plates, in the same solution, in an interval of two weeks, the last one being the transparency above mentioned. Para-phenylendiamin had not so many friends. A substance resembling eikonogen (but evidently of entirely different composition), it dissolves readily, and is used without sulphite, which would seriously retard its action. The formula, we think, has never been published, so we give it here: Make a solution of one

part of para-phenylendiamin to fifty parts of water. Take one volume of this with two volumes of a ten per cent. solution of carbonate of potash. Development proceeds very slowly, and results in a negative of a slightly brown or wine-colored tinge, very clear in the shadows, but somewhat lacking in density. On the whole it was concluded that neither possessed the good qualities of eikonogen, and if they did, their present high price would be prohibitory, as pyrocatechin now costs about seven dollars an ounce, and para-phenylendiamin about one dollar and a quarter. Negatives were shown giving comparative results in which eikonogen was far in the lead in regard to both detail and time, though the impression seemed general that pyrocatechin might be a perfect developer for lantern slides and other work requiring absolute clearness in the unexposed portions of the plate.

The room was then darkened, and the members were entertained with Mr. Buehler's lantern-slide "Trip Around the World," and a series of views taken by Dr. Matteson in Alaska, which were thrown upon the screen with the McAllister lantern.

FRED. K. MORRILL, *Secretary.*

AMERICAN LANTERN-SLIDE INTERCHANGE.

On November 8th, the executive committee, elected by the representatives of each contributing association, met in New York, and examined in the neighborhood of one thousand lantern slides, which had been sent for inspection by the various clubs, as required by the rules. The work of three new clubs was also presented. The committee found the work on the average rather better than that of last year, but in one case it was so inferior that such organization was ruled out for this year. From the one thousand slides sent, about six hundred were selected as of sufficient merit to go the rounds of the Interchange. Typewritten lists are prepared for each set, and the sets are then distributed to the different clubs, each club shipping a set of slides to the next on the list, or route, once a month, until all the slides have been shown.

The committee is trying to arrange an international interchange of slides with societies in other countries, intending to show each set of foreign slides sent here before the several associations, and then return them. A choice set of one hundred American slides, culled from the six hundred selected this year, will then be sent abroad, and go the rounds of the foreign interchange. When through, the set will be returned here, and the slides sent home to their respective clubs. The advantage of this plan is that no maker of a slide is obliged to permanently part with his work, but eventually gets his slides back. The only risk is that of loss by breakage, which, with the improved method of packing now adopted, is reduced to a minimum. In a circular recently issued the executive committee make the following suggestions:

Packing.—To ensure the safe transportation of slides, and convenience of packing and unpacking, they should be put in grooved wood boxes, having a cushion made with a strip of harness felting glued to the bottom and under side of the cover of the box. When closed and clamped with hooks, the cover of the box will hold the slides firmly between the two strips of felting. The packing box for holding the grooved boxes should be lined on the bottom and sides with very thick harness felting, which can be obtained from harness shops; the felting may be glued in, or tacked to the box at its edges. The under side of the cover should be lined with similar felting, stuffed out slightly to form an elastic cushion. The cover should be secured by screws. No saw dust or excelsior must be used, as it gets on the slides.

Shipment of Slides.—The committee requires that the *expressage* on each shipment of slides shall be *prepaid* by the association sending them. It is intended by the manager, who fixes the circuit of the slides, that each association shall ship the slides in its possession on the first of each month.

Selection of Subjects.—It is advisable not to have a repetition of similar subjects in a set, unless it should be necessary for purposes of illustration of a special subject. In selecting subjects they may embrace original figure compositions, views of local or natural scenery, interesting historical subjects, foreign scenery, flowers, animals, marine views, landscapes, specially artistic views and character studies. No copies of paintings or reproductions should be submitted.

Descriptive Lists.—In the list of slides, where it is possible, the plate and process of development used should be stated. Also any interesting episode or special matter of interest attached to any picture should be included, that it may be read to the audience when the pictures are exhibited. Blanks relating to subject, plate, and development, will be furnished by the committee.

Preparing Slides.—In preparing slides see that the mats are neatly and evenly cut; that they are centered nicely on the plate; that the inside edges are parallel with the outside edges of the glass. Black gummed strips of manilla paper, now obtainable in rolls, is advised for binding. In submitting slides to the committee, the Directors are requested not to put any number on the thumb label. The slides will be identified by their titles.

Care of Slides.—The committee requires that each Director shall notify the manager upon the receipt of a box of slides, from whom, and their condition, stating the number, if any, that are damaged. Each association will be held responsible for damage to slides occurring while in its possession.

ASSOCIATIONS IN THE INTERCHANGE.

Philadelphia Photographic Society, W. H. Rau, Director, 1324 Chestnut Street, Philadelphia, Pa.; Society of Amateur Photographers of New York, F. C. Beach, Director, 122 West 36th Street, N. Y.; Pittsburg Amateur Photographers' Society, W. S. Bell, Director, 431 Wood Street, Pittsburg, Pa.; Cincinnati Camera Club, George Bullock, Director, Oak Avenue, Cincinnati, Ohio; St. Louis Camera Club, H. B. Alexander, Director, St. Louis National Bank, St. Louis, Mo.; Chicago Lantern-Slide Club, W. A. Morse, Director, 20 Kemper Place, Chicago, Ill.; Louisville Camera Club, C. R. Peaslee, Director, care Peaslee, Gaulbert & Co., Louisville, Ky.; New Orleans Camera Club, H. T. Howard, Director, 523 Charles Street, New Orleans, La.; Newark Camera Club, C. G. Hine, Director, 883 Broad Street, Newark, N. J.; Syracuse Camera Club, Wallace Dickson, Director, P. O. Box 173, Syracuse, N. Y. (address for packages, care of Del. & Lack. R. R. office); Amateur Photographic Society of Baltimore, A. S. Murray, Director, 1307 North Charles Street, Baltimore, Md.

Executive Committee:—George Bullock, Manager, Oak Avenue, Cincinnati, Ohio; F. C. Beach, 361 Broadway, New York; W. H. Rau, 1324 Chestnut Street, Philadelphia, Pa.

THE PHOTOGRAPHIC SOCIETY OF BALTIMORE.

The regular monthly meeting was held Friday evening, November 15th. After the usual routine work had been disposed of, Professor A. H. Rowland gave an entertaining description of his recent trip to the Pacific Coast with suggestions drawn from his experience. The Professor prefers a single Dallmeyer lens for general landscape work, and uses a shutter of his own invention, so constructed as to allow the angle of line of the drop to be quickly changed to the center line of the lens, thus giving a longer exposure to the foreground than to the sky. He advised the selection of gray or cloudy days for work when long distances were to be included in the views. His method of developing negatives containing cloud effects is to take the plate from the developing tray and wash the sky portion under the tap. The plate is then returned to the tray and developed for more detail in the foreground. He expressed a decided preference for the hydroquinone developer, and advised over-exposure and the use of an old developer. The Professor exhibited forty-seven 8x10 prints from negatives developed in this way and they were thoroughly enjoyed by the members.

The informal meetings on the Fridays when there is no regular meeting are well attended and productive of great benefit. The House Committee is busily at work improving and perfecting the apparatus belonging to the society.

The first lantern night will be held early in December, when slides furnished by the Philadelphia Society, and possibly those of "Illustrated Boston" will be shown.

NEW ORLEANS CAMERA CLUB.

The entertainment recently given by the club, in aid of its furnishing fund, was an artistic and financial success. The exhibition of lantern slides was the best ever given by the club and the musical and literary selections were most meritorious. We congratulate the club on its well-earned success.

THE LOWELL CAMERA CLUB.

To the Editors of the American Amateur Photographer:

Dear Sir,—A special meeting of the Lowell Camera Club was held Friday evening, November 1st, in Central Block. The club exhibition of photographic work that is to be held November 12th to 16th was discussed, and everything needed to make it a success was provided for at this meeting.

Prints and negatives of views of Lowell and vicinity were submitted to the committee that has the club lantern-slide entertainment in charge.

The attraction of the evening was the exhibition of the entertainment, "Illustrated Boston." Mr. H. W. Barnes read the descriptive text, and Mr. W. E. Badger operated the lantern. The entertainment, as is well known, is the work of the Boston Camera Club, which has done a valuable service to all our clubs in advancing the idea of unity in an exhibition of slides. Pictures, however good, must become monotonous to some extent, unless they are presented with some system. The idea of a club illustrating its own city is a good one. The Lowell Camera Club is endeavoring to follow the example set by the Boston Club, and hopes in time to have an exhibition illustrating the "Spindle City."

Respectfully,

GEORGE A. NELSON, *Secretary.*

THE ANNUAL MEETING.

The annual meeting of the Lowell Camera Club, postponed from the 19th, was held November 25th, with a good attendance. The old board of officers was re-elected. The board consists of William P. Atwood, President; Charles J. Glidden, Vice-President; George A. Nelson, Secretary; and Henry W. Barnes, Treasurer. The constitution was amended so as to provide for a librarian, and B. L. Williams was elected to that office. Provision was also made for associate members, and the assessment was increased. Three new members, and two associate members were elected. The entertainment for the evening was varied and interesting. Dr. M. G. Parker gave a brief description of a few of his slides of lightning flashes. Later in the season he is to give an evening to the subject. A set of pictures of representatives of the different Indian tribes and their dwellings, was particularly interesting. The natural wonders of the Yellowstone River region were finely brought out upon the screen, showing the geysers, the canyons, and the water-falls. These slides were loaned to the club by Hon. Charles H. Allen.

FALL EXHIBITION.—(*Lowell Sunday Critic, Nov. 17th.*)

"The exhibition of the Lowell Camera Club, which has been shown during the past week at Morrill's studio, has certainly been one which not only reflects much credit on the individual exhibitors, but also augurs most auspiciously for the future of the delightful pastime of amateur photography in Lowell. Time has been, in the not yet very dim past, when good results, with the best materials to be had for amateur work, has been quite as often accidents as calculated results. The condition of the amateur in this respect has been much improved during the last few years, and now that the days of experimental apparatus are practically days of the past, the amateur who has always believed in his art is beginning to show visible reasons for the faith that has been in him through all adversity. The exhibition of the past week is the first that the present organization has made, and notwithstanding the experience of many of the exhibitors antedates the beginning of the present club, it is one of which the Camera Club may well be proud."

As we have not space to give anything like an extended review of the exhibition, we are obliged to content ourselves with a list of the exhibitors, as follows: Messers W. P. Rundlett, Frank B. Murphy, Allen C. Sargent, Albert S. Guild, George B. Lull, William P. Atwood, M. A. Taylor, Dr. M. G. Parker, George A. Nelson, William S. Greene, William P. Blaney, John Haigh, Henry B. Day, William E. Badger, John I. Coggeshall, H. F. Smith, Robert E. Wescott, Charles J. Glidden, Bert L. Williams, and Henry W. Barnes. Of the lady members Mrs. Julian Talbot, Miss Helen A. Whittier, and Miss Florence H. Whittier sent noticeable exhibits. The exhibition was well attended and the general verdict was that it surpassed previous exhibitions in artistic qualities.

THE NEWARK CAMERA CLUB.—LANTERN SLIDE EXHIBITION.

The Newark Camera Club held its lantern slide exhibit at Library Hall, November 14th. It was one of the most interesting collections of views ever seen in this city, and was even adjudged by some to be far ahead of the New York club's exhibit. The exhibit was divided into three parts, the intermission being filled by Miss May Mansfield, a sweet and pleasing soprano singer from New Haven, Conn. Miss Mansfield was loudly encored after each song. The descriptions of the various views were made in a witty and humorous way by C. C. Hine of Woodside, a member of the club. Mr. Hine had something funny to say about almost every view shown, sometimes quoting a line from poetry, keeping the large audience in a roar of laughter. The first part was made up of views taken by the club while on its late trip over the Morris canal, among them being one of John I. Blair, the forty millionaire of Blairstown, this State, also views taken along the Massachusetts coast. The second part was a series of views from Danish West Indies, and Plymouth, Mass. The third part included views on Coney Island, a fine series of yachting views, and a number of familiar scenes in Newark. Some 600 or 700 hundred people were present. The Camera Club is to be congratulated on the success of this exhibit.—*Newark Press Register.*

THE LYNN CAMERA CLUB.

The regular monthly meeting was held Tuesday evening, November 5th. The Executive Committee reported that the club had joined the New England Lantern Slide Exchange, which now contains seven clubs. The club accepted with thanks the offer of Mr. W. G. Chase to give his illustrated lecture on "Life Among the Shakers," and that of Mr. C. H. Currier, of the Boston Club, to give some of his delightful recitations at the entertainment held on the 21st, to raise funds for the new furnishing of the new quarters.

The regular monthly meeting was held Tuesday, November 5th. The report of the Committee on Entertainment was read and accepted, and it was voted to hold an informal exhibition of prints in connection with the entertainment. Five new members were elected, and it was voted that the club be incorporated.

At the meeting held on Wednesday, November 6th, Mr. Milburn of the Eastman Company gave a successful demonstration of the transparent film, and exhibited the new Kodak.

On Thursday evening, November 21st, the club gave its second exhibition. A goodly audience was present and enjoyed Mr. Currier's selections, and the illustrated lecture, "Life among the Shakers," by Mr. W. G. Chase, of the AMERICAN AMATEUR PHOTOGRAPHER.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

At the regular monthly meeting held November 6th, the Secretary reported the successful demonstration at the Conversational Meeting of October 16th of the new Eastman film by Mr. Milburn of the Eastman Company.

Mr. Walmsley exhibited the new Kodak, which is elsewhere described, and also the new pattern of view camera, made by the Company at their London works, and described in our September number.

Mr. Joseph H. Wilson gave an interesting account of his recent European trip with a Scovill Detective.

Dr. Charles L. Mitchell showed a Blair Compact Camera mounted on a single leg, or "unipod," which seems to possess advantages over the usual form of tripod for certain classes of work.

Mr. Wilkinson exhibited Krugener's hand camera, a German invention. The box is of the magazine type, carrying thirty plates three and one-quarter inches square.

Mr. Francis Burrows exhibited a hand camera, of his own invention, to which he has given the name of "The Ultimate." It is intended for 4 x 5 plates and measures 5 x 5½ x 9 inches, but by drawing out the telescope front it will accommodate a lens of 8 inch focus. The exposing shutter is of the rotary type and behind the lens there is a flap shutter which acts as a light cut-off until the exposure is to be made. The plate-holders are of metal, light and of novel design. The camera carries four holders and can be fitted with the roll-holder.

PROVIDENCE CAMERA CLUB.

The subject for the October meeting was "Eikonogen." Some of the members are very enthusiastic regarding the new developer. It seems to do all that is claimed for it. The ability of the developer to bring out detail in the shadows is marked, instantaneous views developed with it showing fine qualities. For lantern slides it seems to be especially adapted, giving a fine black color with clear whites. The formulas used were those published in the Scientific American for September 21st.

It is necessary to wash the plate thoroughly after developing and before placing in the hypo bath, otherwise yellow and greenish stains are liable to occur. Eikonogen is apparently a tireless worker, one of the members having developed eight 8 x 10, sixteen 6½ x 8½, eleven 4 x 5 plates and two bromide prints in sixteen ounces of developer. It is not known how much more it would have done, for at this point the developer had become reduced to about two ounces.

The single solution developer has been found to work well on negatives, lantern-slides, and bromide paper, and is undoubtedly one of the best for the amateur, there being less eikonogen to the ounce of water, consequently a slower development giving better control. The New England Lantern Slide Exchange, originated by this club, has secured enough members to enable each club in the association to give a lantern exhibition every three weeks, from December 1st to June 1st, and it is expected that much pleasure will be derived from the examination of the work by the different clubs.

J. E. DAVISON, *Secretary*.

BROOKLYN SOCIETY OF AMATEUR PHOTOGRAPHERS.

The society was organized in the spring with the following officers: President, Mr. Allan Ormsbee; Vice-President, Mr. Homer Ladd; Secretary, Mr. G. R. Sheldon, Jr.; Treasurer, Mr. C. F. Blake (now Mr. W. I. Frothingham). The place of meeting is at present at the residences of the members, but active negotiations are in progress for the leasing of suitable rooms in a desirable location. The regular meetings are held on the first Thursday of each month, at which time much valuable information is given the society, together with many practical experiments. The members are all enthusiastic amateurs and the society is rapidly growing.

The first field-day of the society was held on Tuesday, November 5th (election day), at which time a trip was made to Irvington-on-Hudson, Tarrytown, and the vicinity of Sleepy Hollow.

Although the day was unfavorable for good photographic work, still some good negatives were secured by the members. Many makes of cameras were represented, including some home-made ones, and as usual, the detective funds were out in force. The party covered a distance of some fifteen miles and all agreed that a most enjoyable day had been spent. A prize has been offered for the best set of four negatives obtained and conjecture is rife as to who will be the fortunate member. Very Truly Yours,

GEORGE R. SHELDON, JR., *Secretary*.

BROOKLYN INSTITUTE PHOTOGRAPHIC SECTION.

The second meeting of the season was held Tuesday, November 12th. Dr. H. P. Dawe read a paper on "The Chemistry of Photography," and Mr. Wallace Gould Levison, President of the Brooklyn Academy of Photography, gave a blackboard demonstration of some recent experiments in determining the speed of shutters, after which Professor Peckham exhibited a glass negative plate from which the film had been stripped, and upon which was shown an etching effect produced by the action of the developer. Improvements have been made in the dark-room, and a large increase in membership is expected during the coming season.

PITTSBURG CAMERA CLUB.

We regret to be obliged to announce the destruction by fire and water of most of the property of the club. Fortunately the lantern, furniture, and books were saved. The club will look for new quarters at once.

TORONTO AMATEUR PHOTOGRAPHIC ASSOCIATION.

The first meeting of the season was held on Monday evening, November 18th. A large number of the members were present to listen to Mr. Hugh Neilson's practical talk on "Slide Making." The talk was everything that such a talk should be, practical, pointed, and plain. After Mr. Neilson had concluded, a number of excellent slides, the work of the members, were shown on the screen. It is proposed to hold weekly meetings during the winter for the purpose of giving practical demonstrations on all branches of photography.

The following is the list of officers: President, W. Barclay McMurrich; Vice-President, F. D. Mauchee; Secretary and Treasurer, E. Havelock Walsh; Executive Committee, Dr. Ellis, J. S. C. Bethune, T. Laugton, Rupert Muntz, Hugh Neilson, George McMurrich, D. W. Cameron, A. E. Trow.

BUFFALO CAMERA CLUB.

At the annual meeting of the Buffalo Camera Club, held November 16th, the following officers were elected for the ensuing year: President, Dr. G. F. Hunter Bartlett; Vice-President, Charles W. Hamlin; Treasurer, Charles E. Hayes; Recording Secretary, George J. Bailey; Corresponding Secretary, E. F. Hall, 306 Main Street, Buffalo, N. Y. Directors, Dr. Bernard Bartow, Thomas Cary Welch, Edwin L. Burdick, George R. Howard.

SPRINGFIELD CAMERA CLUB.

At a meeting of the club held November 20th, it was voted that the club give a lantern-slide exhibition about the 15th of next month, and a silver-print exhibition, to be held in January, 1890. It was also voted that the club buy a "Lantern" for use of the members of the club, and also for showing slides which we receive from the lantern-slide exchange, of which this club is a member. Four new members were voted in, making a total of fifty members.

BROOKLYN ACADEMY OF PHOTOGRAPHY.

At a meeting held in their rooms at the Hoagland Laboratory, November 29th, W. G. Levison read a paper on "Pyrotechnic Photography." Following it a very entertaining and interesting exhibition of lantern slides was given.

POSTAL PHOTOGRAPHIC CLUB.

To the Editors of the American Amateur Photographer:

You will perhaps confer a favor upon all concerned by conveying to your numerous readers the following information. The Postal Photographic Club, in its present form, was organized a little more than a year ago, with Dr. Max Müller, of West Chester, Pa., as Secretary. The number of the members is limited to thirty, and can be increased only by a special vote of the club. The membership, from which professional photographers are strictly excluded, includes a considerable number of the most successful amateurs in the country, residing in New England and the Eastern States as far south as Virginia. Each member sends to the secretary at least two prints per month. These are mounted in an album which is sent to each member according to a predetermined "route list." Each album is accompanied by a note-book, in which the members criticise the prints. With each print full data are given of lens used, time of exposure, kind of developer, etc. The members record their judgment of the best picture in the album from a technical, and also from an artistic standpoint. These note-books, which are always sent over the route a second time, contain many valuable criticisms and suggestions. Each member of this organization has an opportunity, in the course of a single year, of examining over six hundred prints, a large number of which are of exceptional merit. There are at present a few vacancies in the membership of the club. Only somewhat experienced and fairly successful amateurs are desired. If any such desire further information they are invited to correspond with the undersigned, or directly with the secretary. The annual dues are three dollars. Respectfully,

RANDALL SPAULDING, *President.*

Montclair, New Jersey

EXPERIENCE COLUMN.

SOME EXPERIENCES OF AN AMATEUR.

BY CAMERA CRAYON, OF NEWFOUNDLAND, N. J.

I do not know how interesting my experiences as an amateur photographer may be to others. I will only relate some experiences interesting to myself, and they may aid some one of the vast army of amateurs. I did not enlist in the service without having an aim and a purpose. Living as I did in the picturesque valley of the Pequannock, with its old ruins of forges and furnaces and mines, amid the dashing waterfalls and cascades and mirror lakes secluded in the most beautiful mountain scenery, I found that I did not have to travel far to get scenes to compare with "Picturesque America," if only on a smaller scale than the grander works of nature found elsewhere.

These old ruins of the iron age of the valley had a history that had never been written, and in collecting the facts relating to their historical interest, the idea occurred to me that it might be interesting to preserve these old landmarks for the coming generations, before any changes were being made, for the prospect was that our enterprises would develop into something better, as no place is destined to stand still for the coming hundred years. I have become interested in the writing of their past history, and the sketching of the points of interest have added a charm. Just how to do this sketching was a subject that must necessarily cost time, labor, and expense. I had no time and but little capacity for pencil sketching, which would at best do little justice to the subject and work before me. I resolved, not all at once, to invest in a camera. I knew of a successful photographer who was interviewed as to the probable cost, and was informed that course of instructions, necessary to gain the secrets of the dark-room would cost about fifty dollars. I could add to that sum the cost of camera, an expensive outfit, and my experience, which would necessarily be the most expensive outfit of all. I resolved after some hesitation, on account of the failures that must be made by beginners in every branch of science, to purchase my camera and thoroughly brush up my old chemistry; but alas for the best laid schemes of mice and men! the chemicals used in photography were but little known and treated of in the chemistry of my school-days. I therefore purchased several works treating of photography and subscribed for the best photographic literature in the market. They treated very much of the subjects where I had hoped to leave off when I had graduated in my experiments, besides a continued love story that had little or no material on the subject of photography. Here let me say a word for the AMERICAN AMATEUR PHOTOGRAPHER. From the perusal of the first two numbers, I find they have commenced in the right direction to give aid and material for thought and suggestions, and we hope that it may live many years without digressing from the fact that it is and is to be only an "American Amateur Photographer."

My camera turned out to be a 5x7, with stereoscopic arrangement (no smaller need apply), with a good supply of plate-holders, quite enough for an ordinary day's work at sketching without changing of plates. The lens adopted for the service cost more than the remaining outfit complete, with chemicals and other appliances necessary for completing and finishing the pictures.

Never having entered the dark-room of a brother photographer for fear of the expense I should feel indebted to them for any information they might possibly give, I fitted my own successfully and with as little expense as possible. I purchased my chemicals at wholesale and made my developers and solutions as they were wanted for use, and after experimenting with many of the well-known formulas find the one that gives the best general satisfaction and stick to it. The same may be said of dry plates, and not being in the interest of any manufacturer I prefer giving this general information rather than particular.

One experience in packing exposed plates. They may be placed face to face without a layer of paper between with safety. My first experience was unfortunate. For want of proper

material I used printed paper, and some of my pictures came out with the printed material photographed upon the plate. I had no use for the two connected.

In packing negatives I use the boxes in which they come, and write the name and number of each negative upon the box. They can be readily referred to from a general catalogue of the same. Place the face side up, and cover with thin white paper, as from some experiences, one plate from your greatest friend and enemy, hypo, may contaminate and spoil others. If such are found in your researches after any climatic changes, turn the rascal out at once. If your business will not afford a burnisher, very nicely finished pictures can be made by placing some of your spoiled plates (no amateur will be without them), very thoroughly cleaned, over the photograph, with another on the opposite side, after being partially dried, and when your pile is completed, place under a heavy pressure and left until thoroughly dry. The pictures will come out as smooth as glass.

These and other experiences may be of interest and encourage some who have tact, and principle, and common sense, and artistic talent to dispose of, and discourage others who think they can eclipse those who have given time and study, capital and experience, from the fact they may have read in some of the alluring advertisements that any boy can make a picture. They fail, and why? The writer, from a year's experience, has been enabled to take a hundred or more pictures in succession successfully under the most trying difficulties of light and shade, and yet make half a dozen failures in succession under most favorable circumstances. There are many curious results that may happen in our experiences, and why not give them for the benefit of others? I would be glad to meet with any of our would-be amateurs. The latch-string of our dark-room is outside when we are not engaged, and the materials for sketching in easy access everywhere in our little valley of picturesque America.

TWICE TOLD TALES--FOR BEGINNERS.

1. In buying your outfit, if you have got $25.00 to spend, put $20.00 into your lens and $5.00 into your camera. Reason: any kind of a box that will hold a plate and keep the light out will do for a camera, but goddlemity couldn't make a good photo with a bad lens.

2. Don't touch a quick plate till you can manage a slow one. Reason: with the latter your time of exposure is in fractions of a minute, and a slight error makes no difference; with the former the exposure is in fractions of a second, and a very slight error makes a very great difference.

3. Expose a slow plate by successive inches and develop with normal developer. Note the best time and appearence of the undertimed and overtimed parts, both during and after development.

4. Expose three plates in immediate succession on the same subject, for the same time. They are then just alike. Develop one with an excess of pyro, another with an excess of alkali, the third with normal developer and ten drops of 1% solution of bromide. Note the difference which results. Note also the difference while developing.

Now you know more about developing than you would have found out by a fortnight's unsystematic and promiscuous attempts to "take a picture." The four quantities in the problem are time, bromide, pyro, and alkali. If you want to know the effect of any one of them, vary it, keeping the others constant. Bromide is the great remedy for overtime; pyro less so. Alkali helps undertime *somewhat*, but you can't develop a picture that isn't there.

Instantaneous photos are the hardest of all.

Keep your camera bearings running smoothly. Oil for metal on metal; pure paraffine for everything else. Keep a bit of it in your box. Black-lead and grease are ineffectual and dirty.

CREDE EXPERTO.

AN EXPERIENCE WITH PAPER NEGATIVES.

As "every little helps" toward a complete understanding of the art of making a perfect negative, a peculiar experience of mine several years ago, in an attempt to make a set of interior views on paper films may prove of service to others contemplating a similar attempt. It is not a matter of enough importance, perhaps, to justify its appearance in this volume, and I doubt very much if it will in any way affect the price of plates ten years from now.

Having been requested by some friends to make a set of views of the interior of their cottage on the southern coast of Massachusetts, I one day collected my goods and chattles and made a pilgrimage to that spot. Wishing to avoid, as far as possible, all chances of halation, I had provided myself with a complete set of paper films, supposing that with the generally accepted reason for its occurrence, I could feel perfectly safe with a paper backing to the film instead of a glass one. The next day the weather proved pleasant, although slightly damp, and congratulating myself on my good fortune, I set to work. In a short time I had all the necessary exposures, which, as far as I could tell, promised well. The preceding day had been foggy, and although the lower atmosphere was perfectly clear a slight hazy appearance could be seen in the upper air.

On my return to Boston on the following day, I developed the plates and to my utter astonishment saw before me some of the finest samples of heavy black halation that it has been my fortune to meet in the course of eight years' struggles with the festive dry-plate. Every door and window had disappeared in a beautiful black cloud. To say that I was astonished does not express by one-half the state of my mind; how to explain such an apparent contradiction I did not know, but finally much thought evolved the following solution:

The fog of the day before, in going out during the night must have left the atmosphere filled with tiny particles of moisture too fine to be apparent to the eye but still of sufficient size to reflect light from the upper air. The doors and windows being open these tiny particles filled the rooms and reflected the light from outside into the camera in such a way as to cause an apparent halation, although perhaps in the usual meaning of the word it could not really be called that. I think that had the doors been closed and the rooms carefully dried by heat my pictures would have been more successful.

The above may not be the correct explanation of the circumstance but it is the only one that I can give after consultation with others, and I shall be very glad to receive any suggestions that may occur to the reader, tending to throw light on this "dark" subject.

F. ALCOTT PRATT.

EXPERIMENTS WITH EIKONOGEN.

I have been using eikonogen of late and have fallen quite in love with it, on account of its superiority over any other reducing agent I have used. It does its work quickly, producing negatives that are full of snap and vigor, are quick printers, and free from stain. The half-tones are beautiful, and more and finer detail is obtained than with either pyro or hydro. If necessary the time of exposure may be slightly shortened, although this is not recommended, as it lengthens the time of development considerably. If necessary, however, it may be done with very fair results.

At first I used the formula containing soda as the alkali, but this did not work satisfactorily, and my attention was soon called to the one having potash as the alkali, but keeping it in a separate solution, using very little of it, and having the "Eikey" pretty strong. This gave me good results and I liked it very much. The following is the formula, as given by Mr. Beach in the AMERICAN AMATEUR PHOTOGRAPHER for October:

A.

Water,	30 oz.
Sulphite soda (crystals),	2 oz.
Eikonogen,	1 oz.

B.

Water,	1 oz.
Carbonate potash,	160 gr.

Development is started with 6 oz. A., and ½ to ¾ dram B. If detail in the shadows does not come up well add another dram of B. As development proceeds it may be well to add a little bromide (potassium, I use), although this is not necessary, as good density is obtained without it. I used this formula quite a good deal, using 3 oz. old developer, 3 oz. A., and about 1 dram B. If development is prolonged with this, however, it will produce green fog in the shadows.

My attention was now called to using both potash and soda as the alkali, keeping them weak and using the "Eikey" pretty strong. Also to keeping the latter dry until just before using, in this way insuring a good, fresh solution. The following is the formula:

Water,	30 oz.
Sulphite soda crystals,	4 oz.
Carbonate potassa,	138 gr.
Carbonate soda,	286 gr.
Developer—Water,	2 oz.
Stock solution,	2 oz.
Eikonogen,	48 gr. (12 gr. to ounce).

This is the best formula that I have found yet, it is easily prepared, and does its work well. After being mixed it will keep in good condition for some time. I developed a plate in some of it and then went away and left it exposed to the air, in the graduate, for three hours. I then went back into the dark-room, and developed three more plates in the same solution, and it worked as well as though it had been fresh. How much longer it would have kept I do not know. I had two plates of the same subject, which had had very short exposures, and as near the same time as I could make them. One I developed with "Eikey" having soda as the alkali, and I could not get anything but the high lights. On the other I used the developer just given and obtained a negative with all the detail of nature, and a quick printer. Had I used either pyro or hydro I would not have obtained anything. I have had plates in this solution for nearly half an hour, and did not get a stain of any kind, while prolonged development with the other formulas I used was sure to produce it. I filter my old developer before putting it away, and use it on transparencies, and find it splendid for all that kind of work. In fact it is a universal developer, and the more I use the more I like it.

E. H. G.

Having been bothered a long time with a leaky wooden sink, I determined, although somewhat doubtful of the result, to try iron. Procuring a common cast-iron one, I coated it on the inside with paint oil put on thickly with a brush. When this had sunk in, a second and then a third were put on, and I was surprised to see how readily the oil would sink into the cast-iron. By the time the third coat was on it began to show in patches on the other side. After giving the oil a day or two to dry a coat of paint was put on—a kind of red earthy powder called "fire-proof paint"—mixed with oil. This has since been renewed at intervals of six months or more; and, although the sink has been in use for over two years, and all sorts of dark-room messes turned into it, it is to-day as free from corrosion as it was when first set up.

R. G. N. SWIFT.

QUERIES.

9.—Please give formulæ for the ammonio-nitrate emulsion process. W. C. P.

10.—A correspondent asks what sulphite is meant by "metallic sulphite," which those who use the eikonogen developer are told to avoid.

11.—J. C. H. asks: "Would you advise an amateur who only prints once a month, to sensitize his own paper? 2—Is sensitizing a difficult process? 3—Does the silvering bath require much attention to keep it in order?"

12.—A correspondent asks for particulars of the Clark lens.

ANSWERS.

1.—Snow scenes.—In taking snow scenes the greatest difficulty is to get a suitable light, as the reflections of the snow are liable to spoil the picture. I find the best time to go out is when the sun is weak or on a cloudy day. Even then it is good to shield your lens with the slide of your back. Short exposures can be taken in this light, and with eikonogen good

results ought to be obtained; but if you put any hypo, as an accelerator, in the developer you are liable to get an iridescent circle on your plate; but if you leave out the hypo, this will not appear, and if the picture appears too slowly, make the developer lukewarm.

9.—The ammonio-nitrate emulsion process:

A—Gelatine, ...	110 grains.
Potassic bromide, ...	62 grains.
Ten per cent. solution of salicylic acid in alcohol, ...	½ ounce.
Water, ...	2 ounces.

Cut the gelatine into shreds and place in a melting jar with the other ingredients. Allow the gelatine to swell for fifteen minutes, and make up the following:

B—Silver nitrate, ...	77 grains.
Water, ...	2 ounces.

When the silver is dissolved add strong ammonia drop by drop until the precipitate first formed is just re-dissolved, stirring constantly. The liquid will suddenly become as clear as water. Place the jar containing the gelatine and the flask of converted silver in a water bath and heat gently for fifteen minutes. Now in the dark-room pour gradually in a fine stream with vigorous stirring, solution B into A. Wash out the silver flask with half an ounce of water and add to A. Allow the emulsion to remain in the water bath for twenty minutes, first removing the flame. At no time should the degree of heat exceed 100 degrees Fahrenheit. Pour the emulsion out into a clean porcelain or glass tray and allow it to set. Then break up, wash, melt, filter, and coat as usual, using about one dram of emulsion for each lantern-slide place.

10.—We must confess ourselves somewhat at a loss to answer this question. Soda being a metal or a metallic earth, any compound of the salt might be called metallic. There are two sulphites of soda: One, the chemical formula of which is $Na_2 SO_3$, this is the salt to be used as a preservative in developers. The other is expressed chemically by the formula $Na H SO_3$, that is, it is a salt in which one atom of soda is replaced by an atom of hydrogen. We believe that this is the salt referred to in our correspondent's question, but as it is not a common article with stock dealers, he is not likely to make the mistake of purchasing it. The sulphite usually sold by dealers is generally pure and may be used without fear with the eikonogen developer.

11.—To No. 1—Yes. To Nos. 2 and 3—No.

12.—Write to Bausch & Lomb, Rochester, N. Y.

BOOKS AND EXCHANGES.

We have received Part V. of the *Encyclopedique de Photographie* which completes the first volume. This installment treats of the testing of lenses, the choice of shutters, and devotes two chapters to the discussion of the arrangement of studios and dark-rooms.

Outing for November is an interesting number. Captain Smart's sporting novel "Fly Catcher" is continued, and there are interesting sketches on "A Winter's Sport in Florida," "Our Four-Footed Friends," "Squirrel Hunting in Virginia and Tennessee," "The Orange Athletic Club," etc. Terms, $2.50 a year. With the AMERICAN AMATEUR PHOTOGRAPHER, $3.50.

We have received the first number of the *Photographic Herald*, the new magazine of photography and open-air sports, published by Lœber Bros., New York. The first number promises well and we wish the new venture abundant success. The subscription price is 50 cents a year, but we have made arrangements to furnish it with the *American Amateur Photographer* for $1.60.

Two new photographic monthlies have made their appearance: *Photography*, published in Cincinnati, and *The Camera*, published in New York. We give them a hearty welcome to the fold and wish them all the success their merits may deserve.

The November number of *The American Journal of Photography* contains a remarkably fine Ivestype of Dr. C. L. Mitchell's "On the Profile Road," and reprints of valuable papers from various foreign sources. The price of the magazine is $1.00 a year. We will furnish it in connection with *The American Amateur Photographer*, for $2.00.

We are pleased to notice the marked improvement in the typography and general appearance of that old journal, the *Photgraphic News*. Competition in photographic journalism is certainly working out good results, if it compels proprietors to print the matter in attractive form. Photo-line work is now so cheap and so easily done that it is rather remarkable that more of it does not appear in journals devoted exclusively to photography.

Our other photographic exchanges contain the usual amount of instructive reading matter.

A most delightful little book, entitled "English Idyls," by Dr. P. H. Emerson, the well-known author of "Naturalistic Photography," and our capable English correspondent, has come to us, which pictures in words very entertainingly various phases of English peasant life. There are thirteen short stories, covering one hundred and sixty pages. Among the most interesting are those entitled "The Poachers," and "Yarn of the January Gale." The publishers are Sampson Low, Marston, Searle & Rivington, London.

PUBLISHERS' DEPARTMENT.

[In justice both to ourselves, and to those firms whose specialties are mentioned in this department, we desire to state that we neither ask nor receive compensation for such notices as are given. Any dealer or manufacturer who sends us samples of goods for notice will receive just what the merits of the goods deserve, no more and no less. Any apparatus sent us for trial and notice will be returned if so requested. This department is maintained in the interests of our readers to whom timely notice of novelties may be valuable.]

We call attention to the new advertisements of Mr. John Haworth, the Prosch Manufacturing Company, and Spurr's materials for printing on silk. We have personal knowledge of the specialties thus brought to the attention of our readers and know them to be reliable.

Mr. J. H. Ford, patentee of the well-known Tom Thumb camera has transferred all his rights and titles to the Obrig Camera Company of New York who become sole owners of the patent.

The Prosch shutters are too well and favorably known to need any commendation from us. We have been using a "Duplex" on a Dallmeyer lens during the past summer with increasing satisfaction.

Gayton A. Douglass & Co., Chicago, send us a copy of their brochure on "Silver Printing," which is written in a practical manner, and contains much valuable information. We advise our readers to send for a copy.

We have tested Spurr's materials for printing on silk and we are satisfied with the results. We have obtained some remarkably striking results with them, and our friends will thank us for calling their attention to them.

From W. H. Walmsley, Ltd., Philadelphia, we have received and tested two photo specialties—Walmsely's Silver Intensifier and Hemperly's Duplex Flash Lamp—the former one of the few really satisfactory methods of intensification known to us and the latter a thoroughly efficient means of obtaining a powerful and instantaneous flash. As its name indicates, it is a double barreled lamp, the magnesium powder being contained in glass cartridges which are inserted in the two tubes or barrels of the lamp. These barrels are

connected by rubber tubes to a large bulb. By compressing the bulb the contents of the cartridge is forced out of the barrels into a large alcohol flame. The combustion is more nearly complete and the amount of smoke less with this lamp than most others of similar type.

Mr. G. Gennert, New York, sends us a well gotten-up hand-book of the Montauk Detective, an excellent instrument which was described in the September number, and a descriptive price-list of hard rubber upright fixing tanks. We have long believed in and practiced this method of fixing, and these rubber tanks ought to have a large sale.

Haworth's ready sensitized and chloro-bromide papers are honest goods and capable of giving the very best results. The chloro-bromide paper in particular is worthy of the attention of amateurs. It is easily manipulated, and with suitable negatives easily gives mat surface prints of rich warm tones.

We have had the pleasure of testing the new product of the American Aristotype Company, which we find to be greatly superior to that formerly made by them, toning more easily and certainly. The tones are exceedingly rich and pleasing, and the paper will undoubtedly speedily become popular for all work demanding detail and brilliancy. For thin negatives it is without an equal.

From E. L. Elliott & Co., Auburn, N. Y., we have received one of the $25.00 lanterns advertised in this issue. We do not see how it could be improved on for the price. In our tests we found no difficulty in obtaining a well-illuminated eight foot disc and the simplicity and compactness of the instrument are remarkable. The lamp is the Macallister "Bi-urnal" and the optical parts are of excellent quality. We predict a large sale for the lantern when its merits become generally known.

Carbutt's Flexible Films.—Mr. John E. Dumont's experience with a certain make of flexible films, as given in our November number, was unfortunate. Mr. Robinson's communication, which will be found in this issue, shows that Carbutt's films are free from the defects of which Mr. Dumont complained. Our own recent experience with the same films corroborates Mr. Robinson's testimony. We found them free from faults, brilliant and clean, and we believe that the difficulties incident to all new departures have been overcome by Mr. Carbutt, and so believing we make this statement of our belief in justice to the manufacturer.

United States Photographic Patents

ISSUED IN OCTOBER AND NOVEMBER, 1889.

OCTOBER 29th.

413,801—Photographic Camera; C. W. Eddy, Ware, Mass.
414,015—Machine for coating glass and other surfaces with photographic emulsions; J. W. T. Cadett, Ashstead, County of Surrey, England.
414,171—Photographic cabinet; S. G. Sherwood, Buffalo, N. Y.

NOVEMBER 12th.

414,735—Roll holder for photographic films; Thos. Taylor, Glasgow, Scotland.
414,811—Vignetting attachment for printing frames; S. D. Harvey, Tipton, Ind.
415,040—Telescope objective; C. S. Hastings, New Haven, Conn.

NOVEMBER 19th.

415,552—Photographic frame; L. H. Orr, Springfield, Mass.
415,566—Method of coating celluloid plates; F. Rowell, Boston, Mass.

NOVEMBER 26th.

415,713—Photographic frame; G. W. Gilbert, Kendallville, Ind.
415,942—Album leaf; B. Fuchs, Rawitsch, Prussia, Germany.

List of Dark-Rooms Open to the Use of Amateurs.

LURAY INN—*Luray, Virginia.*
PROSPECT HOUSE—*Blue Mountain Lake, Hamilton Co., New York.*
HIGH FALLS HOUSE—*Dingman's Ferry, Penn.*
THE STANLEY HOUSE—*Lake Joseph, Muskoka, Ont.*
CASCADE LAKE HOUSE—*Adirondacks, N. Y.*
HOTEL CORONADO—*San Diego, California.*
THE RAYMOND—*East Pasadena, California.*
SAN MARCO—*Santa Barbara, California.*
DEL MONTE—*Monterey, California.*
SPENCER HOUSE—*Niagara Falls, New York.*
SLIDE MOUNTAIN HOUSE—*Big Indian Catskill Mountains, New York.*
FORT WILLIAM HENRY HOTEL—*Lake George, New York.*
PROFILE HOUSE—*White Mountains, New Hampshire.*
THE WESTPORT INN—*Westport, New York.*
BREEZE LAWN—*Hunter, New York.*
LAKE VIEW HOUSE—*Bolton, Lake George, New York.*
MOUNTAIN PARK HOTEL—*Hot Springs, North Carolina.*
THE CLEREMONT HOUSE—*Southwest Harbor, Mt. Desert, Maine.*
COLE'S HOTEL—*Kidder's Ferry, Cayuga Lake, New York.*
THE CHISWICK INN—*Littleton, New Hampshire.*
SAM. C. PARTRIDGE—*San Francisco, 529 Commercial Street.*
THE CHICAGO CAMERA CLUB—*Chicago, 182 Wabash Avenue.*
GAYTON A. DOUGLASS & CO.—*Chicago, 185 Wabash Avenue.*
THE BLAIR CAMERA CO.—*Chicago, 208 State Street.*
W. H. WALMSLEY, LTD.—*Philadelphia, 1022 Walnut Street.*
R. H. MORAN—*New York, 396 Broome Street.*
BARKER & STARBIRD—*Boston, 56 Bromfield Street.*

SALE AND EXCHANGE.

[This department is for the benefit of SUBSCRIBERS who have photographic material, apparatus, or books, which they wish to exchange, and such wants will be inserted free of charge. The number of insertions given will depend upon the number of exchanges received each month. Subscribers will please notify us when articles have been exchanged or sold.]

For Exchange—Morrison lens, 10 inch focus, cuts a 5x7 plate sharp with full opening, 8x10 when stopped down, fitted with Prosch shutter; in exchange for a good oil burning optical lantern suitable for enlarging.—*Sam'l Irvine, Coshocton, Ohio.*

For Sale—Bausch & Lomb universal lens, medium stop, covers 8x10. New. $30.—*B., care of Am. Am. Photographer, Brunswick, Me.*

For Sale—Kodak Camera, used one season, partly filled with the new transparent film. Price $15.—*Kodak, Am. Am. Photographer, Brunswick, Me.*

Wanted—Copies of No. 1 of the American Amateur Photographer. Address this office.

Wanted—No. 1 of the American Amateur Photographer.—*W. Mansur, No. 637 Main St., Charlestown, Mass.*

Wanted—Nos. 2 and 4 of the American Amateur Photographer.—*Charles H. Neff, Portland, Conn.*

FOR SALE.

BAUSCH & LOMB,

Gundlach, and Steinheil Lenses,

ACME BURNISHERS.

The above goods are all new, have never been used, and will be sold cheap for cash.

For Particulars apply at this office.

PARET'S

INK MANIFOLD BOOK

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PRODUCES letter copy at one writing, without use of pen, ink, press, brush, or water. Both letter and copy are *in ink*. This ink is *absolutely permanent*; a fact of vast importance to Lawyers and others, to whom a permanent record is essential. U. S. Government and other tests confirm this. Write for Circular, Price-List, and sample of the work.

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No. 1225 Pennsylvania Avenue, N. W.,

WASHINGTON, D. C. 6-1t.

— TRY —

OUR UNEQUALED COLLODION

ARISTOTYPE PAPER.

Freshly Sensitized to Order Every Day.

NO STALE PAPER SOLD

Send for Prices,

E. A. GILBERT, Jamestown, N. Y.

6-tf.

Hope's Hydrokinon Developers

Hope's Salted Papers.

Hope's Blue Paper.

We are selling these to Camera Clubs and Amateurs throughout the country and all speak highly of them.

HOPE'S DEVELOPERS produce the finest results for Dry Plates, Bromide and Photo Chloride Prints, Kodak Views, and Transferotypes. It remains clear after long use. An Amateur has developed 68 plates (1-4 size) in a single mixed solution of 3 oz. each Nos. 1 and 2.

HOPE'S BLUE PAPER is brilliant in color and will *keep fresh*.

HOPE'S SALTED PAPER is superior to any article in the market, and when sensitized with **HOPE'S SILVER SOLUTION** (easily applied) gives prints rivaling in artistic qualities the finest productions in photography.

Send for Circular of Photographic Specialties.

The John Wilkinson Co.,

55 State Street, - CHICAGO.

6-3t.

THE ULTIMATE.



Showing box extended and the arrangement of the bottom.

— THE —

Latest Achievement in Cameras.

Possessing every advantage peculiar to detective or hand cameras, and the adjustability of the bellows body. In size it is 5 x 6 x 9 inches, the smallest 4 x 5 detective made, and yet it will accommodate any lens from 4½ to 8 inches focus.

It is fitted with a 4 x 5 Pantagraph R. R. Lens, 5¾ inch focus working aperture f 6, and with the new **Ultimate Shutter** adjustable for exposures from 1-30 to 1-500 per cent. of a second, and time exposures from 1-2 per cent. up.

The Camera includes a flap shutter in rear of the lens for use in changing stops or shutter speed, and four of the new patent Ultimate Plate-holders, the smallest 4 x 5 double plate-holders made. These are locked in position by a new arrangement which holds them rigidly in place by the simple act of placing them there.

They may be removed and a 3¼ x 4¼ Eastman Roll-holder substituted as easily as on an ordinary view camera.

We advise the use of the f 16 stop for fair weather work, and the Ultimate Developer.

PRICE, with Four Ultimate Plate-holders and Lens, $35.00; with Eastman Roll-holder and Lens, $40.00; with Ultimate and Roll-holders and Lens, $45.00; without Lens, $13.00 less; Ultimate Plate-holders, 4 x 5 inches, $1 25

THE ULTIMATE

— IS THE —

MOST ENERGETIC DEVELOPER KNOWN.

By its use the f 16 stop may be used instead of the f 8 with other developers, and the f 8 stop acquires four times the rapidity it formerly possessed.

This enormously increases the capacity of any lens, either for rapidity or extreme definition and depth of focus. Even landscape lenses may be used with high speed shutters.

Used full strength, gives strong, black deposits; when well diluted with water, gives remarkable detail and a fine, warm tone. For ordinary use it must be well restrained, either by using many times over with small additions of fresh solution, as required, or with bromide of potash or soda.

A trial will satisfy the skeptical.



Showing Lens Opening and Shutter-Lever.

PRICE, 8 oz. Bottle, 40c.; 4 oz. Bottle, 25c.

The QUEEN FLASH LAMP (we guarantee it), 75 c.; the QUEEN FLASH LAMP, '89, $2.50; a Nickel Plated Pocket Lamp for Pure Magnesium on Explosive Powders.

THE QUEEN T AND I SHUTTER

Time and Instantaneous.

Burrows' Patent.

THE LATEST AND BEST.

This shutter is noted for its compactness, and on account of its form is strong and will stand hard usage. It is finished in the very best manner, and, while strongly made, the moving parts are exceedingly light and simple.

After being set, and the slide drawn, it may be changed to time of instantaneous (slow or fast), by a touch of the finger. It gives time exposures from 1 to 1-10 second, which is an important advantage.

These shutters are fitted to lenses giving the full size aperture necessary to rapid work.

The parts are perfectly balanced, making shock imperceptible; rebound is impossible, avoiding secondary exposure.

PRICE, Fitted to Lens Cells Complete:

	Aperture Diameter.	Outside Diameter.	For Lenses.	Price.
No. 1, ...	1 in.,	2¼ in.,	4 x 5 -5 x 8,	$15.00
" 2, ...	1½ "	3¼ "	6½ x 8½-8 x 10,	16.00
" 3, ...	2 "	4½ "	8 x 10 -up,	21.00

Where extra flange collar is necessary, $1.25 to $1.75 extra.

A FULL LINE OF LENSES, CAMERAS, AMATEUR and PROFESSIONAL SUPPLIES.

Priced and Illustrated Catalogue sent on application.

QUEEN & CO., MANUFACTURERS,

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Haworth's Sensitized Albumen Paper.

KEEPS FRESH SEVERAL MONTHS.

WORKS BY ANY OF THE REGULAR FORMULAS.

YIELDS PRINTS EQUAL TO THOSE ON THE BEST FRESHLY SENSITIZED PAPER.

IS SOLD IN OPEN PACKAGES, SO THAT THE PURCHASER CAN EXAMINE BEFORE BUYING.

11x22, $3.00 Per Dozen; SMALLER SIZES AT PROPORTIONATE PRICES.

Haworth's Compound Toning & Fixing Bath.

TONES AND FIXES BY ONE OPERATION.

GIVES FRESH HIGH-LIGHTS AND RICH TONES.

LESSENS LIABILITY TO BLISTERS.

PINT, 75 CENTS. *HALF PINT, 45 CENTS.*

Chloro-Bromide Paper ∴ ∴ ∴

IS A READY SENSITIZED PAPER, WHICH BY ONE SIMPLE OPERATION GIVES REMARKABLY BOLD ARTISTIC PRINTS, WITH A MAT SURFACE.

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Dealer in General Photographic Supplies.

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626 ARCH STREET,

PHILADELPHIA.

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13 Tremont Row, Boston, Mass.,

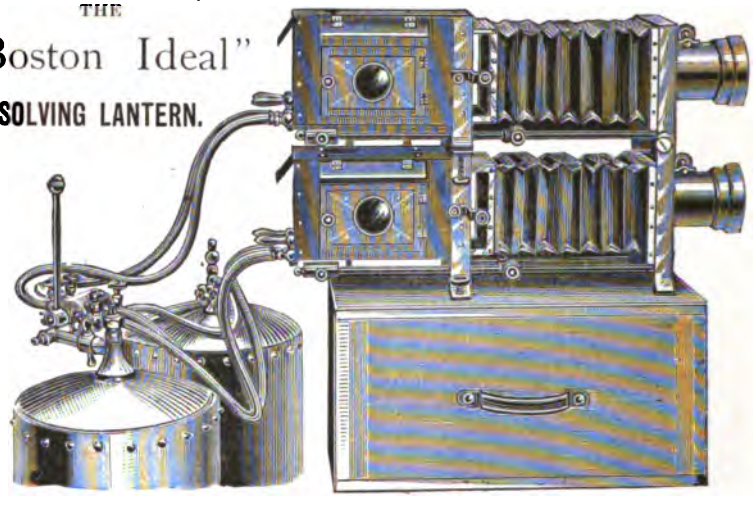
Manufacturers and Dealers in

Stereopticons, Magic Lanterns, and Lantern Slides.

THE

"Boston Ideal"

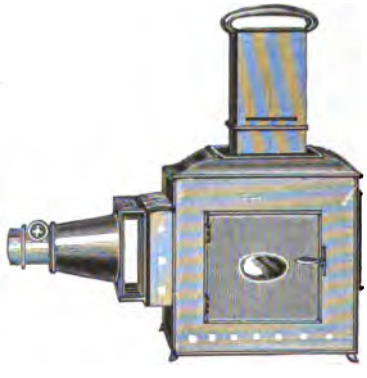
DISSOLVING LANTERN.



Slides of all Countries in Stock and Made to Order.

Thompson's Optical Lantern.

We will recommend this lantern to all who are desirous of purchasing a good lantern at a moderate price.



Both objective and condensing lenses are imported, and will produce a clear, well-defined picture, eight feet in diameter.

PRICE, COMPLETE IN CASE, $25.00.

Write for Illustrated Catalogue. **13 Tremont Row, BOSTON, MASS.**

WUESTNER'S

NEW EAGLE DRY PLATE WORKS,

MANUFACTURERS OF

Gelatine Dry Plates,

OFFICE, 24 JACKSON PLACE,

Jersey City, N. J., August 12, 1889.

ACTIONS SPEAK LOUDER THAN WORDS.

AT the **Tenth Annual Convention of the P. A. of A.**, held at Boston, August 6 to 10, 1889, the **NEW EAGLE PLATE** told its own story by carrying off more gold and silver medals than any other Plate. The awards in class A for the four best exhibits in genre photography were four gold medals, and of which the New Eagle carried away three:

O. P. SCOTT, of Chicago, **Gold Medal**, his exhibit was made on the New Eagle **Only.**

S. L. STEIN, of Milwaukee, **Gold Medal**, his exhibit was made on the New Eagle **Only.**

G. M. ELTON, of Palmira, N. Y., **Gold Medal**, the greatest and best part of his exhibit was made on the New Eagle.

The awards in class B were one gold and two silver medals; of these the Eagle carried away the gold and one silver medal:

L. M. BAKER, of Columbus, **Gold Medal**, the best part of his exhibit was made on the Eagle.

J. HY. DOERR, of Louisville, **Silver Medal**, his exhibit was made on the Eagle **Only.**

THE NEW EAGLE PLATE

Has been manufactured and placed upon the market since December 1, 1888, without having had a single failure up to date. The plates run **Uniform and Clean. Their Ease in Development, Brilliancy, Fine Gradation, and Full Density,** combined with **Rapidity,** give negatives of a rare beauty seldom attained by any other plates.

To substantiate the above we have testimonials from the leading photographers all over the United States, and who are all using our Plate.

If you have not had any of the **Wuestner's New Eagle Plate,** then send in a trial order and convince yourself. When ordering from stock houses see that you get

WUESTNER'S NEW EAGLE DRY PLATES.

Yours Fraternally,

6-6t. **Wuestner's New Eagle Dry Plate Works.**

BY COMMON CONSENT **The Shutter** for Outdoor and Studio work should be one which can be depended on to work continuously, as well outdoors as in a studio; and which can be successfully employed on all kinds of outdoor as well as studio work.

Measured by this standard (or any other formulated by an unbiased authority) it will be demonstrated that

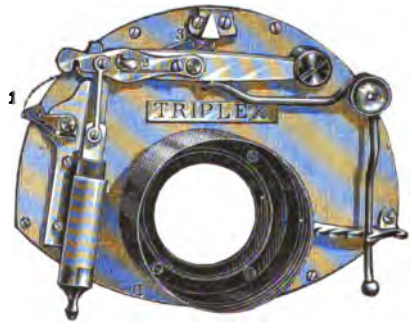
THE "TRIPLEX" SHUTTER

Is the Shutter for Outdoor and Studio Work.

Its Simplicity of Parts is Apparent on Its Face.

It Has But Two Interior Exposing Slides.

No Delicate Springs.



Cut shows Shutter adjusted for focusing. Unhook spring and it is adjusted for **time work**; attach air bulb and press it and shutter opens, **silently and without jar**; relieve pressure and it closes and **resets** itself; if hook 3 is in an upright position a **slow instantaneous** exposure will result; the rapidity from 1-4 to 1-50 of second is regulated at **instant** of movement by quickness of pressure on air bulb; throw in locking catch 1, hook on spring, pull down lever arm by knob 2 and shutter is set for a **quick instantaneous** exposure. The pneumatic device, which in time and slow instantaneous movements, operates to propel the exposing mechanism, now operates to release locking catch 1, and when bulb is pressed an exposure of 1–50 to 1–250 of second is made, according as spring is adjusted.

Perfect Time and Instantaneous, Stereoscopic AND Detective Shutters.

Circular and Price-Lists on application.

PROSCH MANUFACTURING CO.,

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Proprietors of Cyrus Prosch's Photo. Shutters. 6-12t.



PHOTOGRAPHING ON SILK.

Perfect, Simple, Elegant.

SPURR'S

Silk Printing

Solutions.

These Chemicals Have No Equal for Brilliancy.

No humbug, but a practical process for making photographs on the most delicate silk fabrics or linen.

They do not print in the cloth and make a flat picture. Any desired tone can be had, from a rich brown to a blue-black; easy to manipulate and never failing. Can be used in many ways for souvenirs, hat marks, banners, silk scarfs, handkerchiefs, etc. They

WILL CREATE A SENSATION.

The progressive photographer who introduces this work, and makes a few samples, and does not put the chemicals up on a shelf and wait for some one to call for it, but advertises, pushes, and wakes up the people is the one who is in the lead. Remember, one set of these chemicals cost $3.00 and will make

ONE HUNDRED PRINTS AT $1.00 EACH.

As easy to manipulate as albumen paper, and none genuine unless put up in **Blue Glass Bottles** with my **Name Engraved** in the side. Take no other. **Prices:**

16 Oz. Salting Solutions, - - - - - - -	**$1.50**
8 Oz. Sensitizing Solution, - - - - - - -	**$1.50**

For Sale by all Photographic Stock Dealers in the United States and Canada.

FOR ANY INFORMATION, ADDRESS

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LIGHT. COMPACT. HANDY.

An ingenious but simple Camera for exposing twelve 4x5 Dry Plates without reloading.

HAS NO PLATE HOLDERS. NO GROUND GLASS.

With Universal Focus, already for use. Time or Instantaneous. In appearance Unlike a Camera. Has Recessed Finder and Tripod Plates.

PRICE, $25.00.

Send for Descriptive Circular and Sample Photograph. For Sale by all Dealers, and

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Inporters and Dealers in Outfits and Supplies for Photography,

MENTION THIS MAGAZINE. 229 & 231 State Street, CHICAGO.

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— AND —

SPECIALTIES,

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Catalogue and Bargain List free on application.

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PROFESSIONAL AND AMATEUR.

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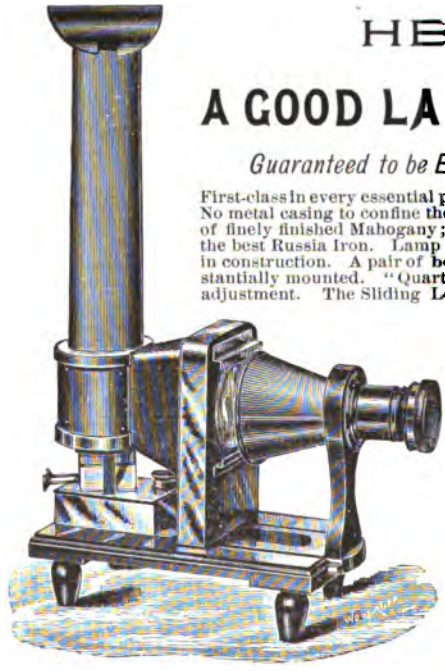
Ortho-Panactinic Lens.

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C. H. CODMAN & CO.,

34 BROMFIELD STREET, BOSTON, MASS.

4-ly.



HERE IT IS.

A GOOD LANTERN FOR $25.00

Guaranteed to be Equal to any $35 One on the Market.

First-class in every essential point. No extra parts added for would-be ornament. No metal casing to confine the heat and conceal the working parts. Wood work of finely finished Mahogany; Trimmings of Lacquered Brass; Metal Work of the best Russia Iron. Lamp of the **Highest Possible Efficiency, yet Simple** in construction. A pair of **best quality** 4 1-8 in. Plano-Convex Condensers substantially mounted. "Quarter size" Darlot Objective, with rack and pinion adjustment. The Sliding Lens Carrier, and arrangement for receiving negatives 5 in. wide make it **a perfect instrument for Bromide Enlarging from 4 x 5 and Cabinet Size Negatives.** It will produce a picture 10 or 12 feet **square, well lighted and defined.** We also make the

Highest Grade Dissolving View Stereopticons, and Scientific Lanterns.

And can save you money on each and every purchase from us.

Our Lantern Slide Plates are the Best in the World,

And will give results fully equal to the best foreign slides. Try them. 65c. per doz., net.

E. L. ELLIOTT & CO.,

AUBURN, N. Y. 6

ST. LOUIS OFFICE,
1202 Washington Avenue.

NEW YORK OFFICE,
No. 2 Bond Street.



ARROW BRAND.

Works at Woodland, Mo.

PRICE LIST

SEED'S

Negative and Positive Films.

SEED'S * NEGATIVE * FILMS,

Treated in every respect like Seed Plates. Coated with Nos. 23 and 26 Sentö Emulsion.

PRICE LIST.

	Per dozen.		Per dozen.		Per dozen.		Per dozen.		Per dozen.
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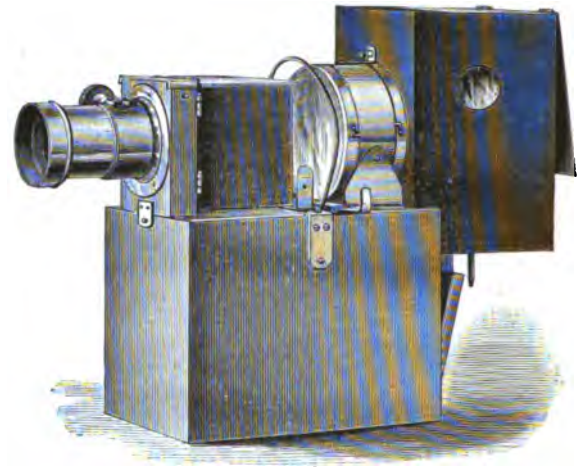
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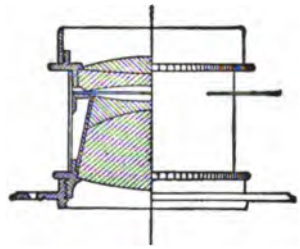
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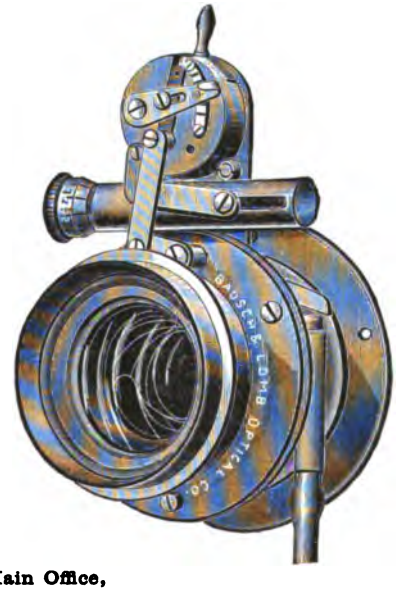
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